# Fiber ptic.com The Fiber Optic Marketplace LLC®



# **2014 Catalog**

**Full-Line Edition** 

Toll Free: 877.529.9114 • Fax: 215.689.1463 • sales@fiberoptic.com

# Fiber ptic.com Company Profile



#### **SHIPPING OPTIONS**

- Same day shipping for in-stock products ordered before 3PM EST.
- You choose your shipping method: UPS, FedEx, DHL or U.S. Postal Service
- Global shipping

### VALUE ADDED SERVICES

We are here to provide you with solutions and products to fulfill your project needs

- Free account set up with your first purchase
- Equipment Rentals
- Free Professional Technical Support available 9AM-5PM EST
- Chat on-line with a Professional in Real Time
- Global Training
- With Over 3,000 Products in Stock we are guaranteed to meet any of your fiber optic needs

#### **HOURS OF OPERATION**

FiberOptic.com has Professional Sales Representatives ready to take your order Monday through Friday, 9AM - 5PM Eastern Standard Time or place your order on-line through our web-site www.fiberoptic.com.

' ince its formation in 1995, FiberOptic.com has become the number one on-line provider of fiber optic products, training and rental solutions. The Fiber Optic Marketplace, LLC began as an on-line business-to-business portal for the fiber optic community, and has expanded its business both domestically and internationally. The company's customers include Fortune 500 companies, telecommunications providers, the military, installers, contractors and educational institutions from across the globe. In addition to efficient product distribution, FiberOptic.com offers classroom, on-site and online training courses for individuals interested in fiber optic theory and installation. Experienced fiber optics instructors conduct two and four-day training classes throughout the year at our location in Breinigsville, Pennsylvania. On-site training programs are also available for groups of six students or more. The company also offers equipment rentals including fusion splicers and OTDRs.

The Fiber Optic Marketplace, LLC is committed to maintaining excellent customer service and client relations. As we continue into the future, the company will continue to offer expertise in the field of fiber optics by providing customized solutions for our customers' project requirements. We will continue to uphold our status as the number one on-line provider of fiber optic products, training and rental solutions.



### **TO PLACE AN ORDER**

- Web: www.fiberoptic.com
- E-mail: sales@fiberoptic.com
- Phone: 1-877-529-9114
- Fax: 1-215-689-1463

If we have your email address on file, orders will be confirmed automatically via e-mail.

# For sales assistance 1-877-529-9114



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#### LEGAL NOTICE

All products are sold FOB shipping point. Items will be shipped UPS ground, freight collect or third-party bill unless otherwise requested by purchaser. Please advise method of shipment and preferred carrier when order is placed. We discourage mandatory carrier requirements which have an adverse effect on service and delivery. Check your order immediately upon arrival. All damages must be noted on delivery receipt. Any claims for damage or loss of items while in transit must be filed with the carrier.

For purchasers with established credit, terms are net 30 days from date of shipment. Payments must be in U.S. dollars and cash discounts are not allowed. Our remit to address is The Fiber Optic Marketplace, One TEK Park Suite 220, 9999 Hamilton Blvd. Breinigsville PA 18031.

Items being returned must first be approved by FiberOptic.com and must be shipped freight prepaid. Returned goods are subject to a 25% restocking fee.

Custom orders are not refundable.

Any liability for consequential or incidental damages is expressly disclaimed. FiberOptic.com's liability is limited to, and shall not exceed, the purchase price paid.

Catalog prices are subject to change without notice.

# FiberOptic.com

# Manage your network assets Instantly locate outages Plan network expansion





#### **Perform Complex Queries**

Whether you need to know how many customers have been affected by an outage, or simply want to see how many pieces of equipment in your central office are older than 5 years, FiberBase makes it easy. Built around an Oracle back end, FiberBase can query any data, based on any parameter you define.

#### Track Network Assets

The importance of having a complete listing of your equipment, where it is located and what it is attached to, cannot be underestimated in any size network. Whether copper or fiber, networks can be pretty complex. FiberBase eliminates the guesswork, enabling you to map every asset and feature of your network. FiberBase allows you to zoom from a satellite map view all the way down to an individual customer on a single transport signal!

#### **Real-time Networking Monitoring**

Dedicated Network Monitoring Devices are gaining popularity in the Fiber Optics industry. By continuously scanning your network for signal degradation, monitoring solutions allow you to locate and address problems before they lead to outages, saving you time and money.

FiberBase has now partnered with NTest, the industry's leading Remote Fiber Test System. Together, NTest and FiberBase can monitor a network 24/7, alerting service providers or engineers of problems and then mapping the incident location down to a street address or closest intersection!







#### Instantly Locate Outages

It's fairly likely that you use OTDR traces to determine the integrity of your network. Unfortunately, OTDRs don't know the difference between a cable that's running up a pole or one that's underground. With proper mapping of your network, you can often pinpoint problems with a single OTDR scan!





## **Rental Equipment** (Splice & Test) Fiber (ptic.com

#### Don't see what your looking for? FiberOptic.com offers a complete line of rental solutions.

Visit us at our rental website www.RentTele.com. Call us at 877-529-9114, or Email at Rentals@fiberoptic.com to request a quote.

\*We will price match any competitor's quote.



## Get a FREE\* **Visual Fault Locator when** you rent from FiberOptic.com

\*Applies to rentals one(1) month or greater only

#### **OTDRs**

#### **Dual Wavelength** 850/1300nm or 1310/1550nm





PRO-MM-18/22 EXFO FTB-1

EXFO FTB-200



EXFO	FTD 1
	FID-I

\$625.00	1 Week	\$625.00	1 Week
\$875.00	2 Week	\$875.00	2 Week
\$1,155.00	4 Week	\$1,155.00	4 Week
BERD 2000	JDSU T-	PRO-MM-18/22	
\$650.00	1 Week	\$475.00	1 Week
\$900.00	2 Week	\$675.00	2 Week
\$1,175.00	4 Week	\$875.00	4 Week

#### **TERMS & CONDITIONS**

Cleaver and one spare set of electrodes are provided with the splicers, electrodes are also available for purchase.
 If required, OTDRs are supplied with choice of adapter and launch cable.
 (FC or SC standard)

Or SC Stationard
One test cable is provided with each power meter and light source.
Rental periods are by the week from the time of shipment until the time of return.

## **Fusion Splicers**

**Core Alignment** 

Precision	Rated	Optics
recision	nateu	Optics

1 Week	\$450.00
2 Week	\$720.00
4 Week	\$950.00



OFS-930

AFL /	Sumito	omo /	Other

\$1.025.00 1 Week \$1,255.00 2 Week 4 Week \$1,675.00



70S

#### **Mass Fusion**

#### **Precision Rated Optics** \$995.00 1 Week

\$1,255.00 2 Week 4 Week \$1.675.00



OFS-950R

#### **Quad Wavelength** 850/1300/1310/1550nm







EXFO FTB200v2 EXFO FTB-200

PRO 50

JDSU T-BERD 6000

NOYES M200

1 Week	\$950.00	1 Week	\$950.00
2 Week	\$1,155.00	2 Week	\$1,155.00
4 Week	\$1,675.00	4 Week	\$1,675.00
PRO 5Q JDSU T-B		BERD 6000	
1 Week	\$625.00	1 Week	\$975.00
2 Week	\$875.00	2 Week	\$1,200.00
4 Week	\$1,155.00	4 Week	\$1,650.00

No cancellations will be granted after the product has been shipped.
Renter agrees to use equipment safely and return the product in as good condition as when originally received. If in default, renter agrees to pay the Fiber Optic Marketplace, U.C. 6

LLC for any loss or damage of rental equipment. • It is the renter's responsibility to return the rental unit via a traceable means (e.g. UPS).



# **PR©-730** Core Alignment Fusion Splicer

Whether your application is Premise, OSP or FTTx, splicing with the PRO-730 will get the job done right! The core-alignment PRO-730 is designed to work with all the popular fiber types and in all weather conditions. With storage space for up to 8000 groups of splice results and a reversible monitor, you can splice all day long with efficiency and ease.

#### Features:

- Color LCD monitor & 256 magnification
- Compact & Lightweight
- Reversible monitor with control panel on each side
- Max. wind velocity of 15m/s.
- 8 Sec. splice time, 40 Sec. tube-heat time
- Simultaneous X and Y views
- Large capacity internal battery
- SYSTEM TEST ensures the best working condition
- User programmable
- Auto check fiber end face
- Auto calibrate parameters
- Store 8000 groups of splice results
- Multiple language options

#### **SPECIFICATIONS**

Applicable Fibers	SM, MM, DS, NZ-DS, EDF
Cladding Diameter	100 to 150um
Cleave Length	16mm (standard)
Average Splice Loss	0.02dB (SM), 0.01dB (MM), 0.04dB (DS), 0.04 (NZDS)
Environmental Conditions	~25 ~ +50 C (temp), 0~95% (humidity), 0~5000m (altitude)
Tension Test	2.0N (Standard)
Monitor	Color LCD @ 200X
Splice Time	8 Seconds
Heater Time	40 Seconds (Best time)
Max Wind Velocity	15 mph
Camera Axis	X axis & Y axis
Languages	English, Spanish, Russian, Korean
Auto check fiber end face	Yes
Auto calibrate	Yes
User Programmable	Yes
Interface	RS232
Data Storage	8000 Splices
Power Supply	Internal Battery (12V - 200 splices), DC Adapter (12V)
Dimensions	6.5 (W) x 5.5 (H) x 6.5 (D) inches
Weight	7.25 lbs

# ORDERING INFORMATION PRO-730 PRO-730

**The Kit includes:** Splicer, Cleaver, Spare Electrodes, Battery, AC Adapter/Batter Charger, AC Power Cord, V-Groove Brush, Cooling Tray, Monitor Cover, Manual, Quick Guide, Hard Case.

PRO-730

#### PRO-730-STK1 PRO-730 Technician Kit

**The Kit includes:** Splicer, 100 Splice Sleeves, (LS-201Q) Quad Laser Source, (PM-102A) Power Meter, (VFL-1A) Visual Fault Locator, 400x Scope, Rugged Nylon Bag

#### **Rentals also available**

Week	Price
1	\$395.00
2	\$695.00
4	\$895.00

#### **OPTIONAL ACCESSORIES** AND SUPPLIES

FS-BAT-730	Battery	\$530.00
FS-ELEC-730	Electrodes	\$150.00
FS-C20	Cleaver	\$1,113.00
FS-AC-1	AC Adapter	\$265.00
FS-AC-2	AC Power Cord	\$100.00
PRO-730-EW	1 Year Extended Warranty	\$995.00

\*Ask about our extended warranty and loaner programs for PRO splicers!\*

Fiber optic.com

PRECISION RATED OPTI

SPLICING EQUIPMENT

Splice Sleeves - page 27

\$6,995.00

\$9.495.00

# **PR** - 810 Fusion Splicer Dual Heaters & Digital Image Processing

The PRO 810 fusion splicer is a dependable, core-alignment splicer that incorporates a user-friendly interface and includes a standard list of features rarely found on splicers at this price point. The rugged construction is perfect for harsh working conditions, whether it's Premise, OSP or FTTx.

For ease of use, the PRO 810 features a reversible, 5-inch, HD LCD monitor, allowing for front or rear splicer orientation. Additionally, the PRO 810 is FiberBasecompatible, allowing results to be uploaded and integrated into the FiberBase software for permanent storage and retrieval.

The PRO 810 is, by far, the best valued splicer available on the market today.

#### Features 8 sec. splice time, 30 sec. heat time & USB interface

#### **SPECIFICATIONS**

Applicable fibers	SM, MM, DS, NZ-DS(G655), EDF and others
Cladding diameter (um)	100 to 150
Coating diameter (um) Fiber cleaved length	100 to 1000 16mm (standard)
Splicing mode	Auto & Manual
Average splice loss	0.02dB(SM), 0.01dB(MM). 0.04dB(NZDS)
Return loss	≥60dB
Tension test	2.0N (200gf) (Standard)
Protection sleeve length	20mm, 40mm, 60mm and other series micro protection sleeves
Splicing program	80 groups
Language	English, Korean, Russian, Spanish, French, Portuguese and others
Environment conditions	-13~ +122 <sup>O</sup> F operation temp (-25~ +50 <sup>O</sup> C), 0~95%RH (humidity), 0~4000m (altitude)
Storage environment	-40~ +176 <sup>0</sup> F temp (-40~ +80 <sup>0</sup> C), 0~95% RH (humidity)
Interface	USB interface - updates & result transfer
Power supply	AC adapter: 85~260V input voltage Internal battery: 12V, 10Ah, Capable of up to 200 sets o continuous splice and heat DC adapter: 12V voltage, optional multipurpose external battery
Dimensions/Weight	5.75 (D) x 5.90 (W) x 6.29 (H) in / 7.3 lbs (146 (D) x 150 (W) x 160 (H) mm/ 3.3 kg)

#### **ORDERING INFORMATION**

PRO-810	Dual Heaters & Digital Image Processing Fusion Splicer	\$8,995.00
The Kit includes:	Fusion Splicer Internal Battery Charger Spare Electrodes	Cooling Tray Instruction

The Kit includes: Eusion Splicer, Internal Battery, Charger, Spare Electrodes, Cooling Tray, Instruction Manual, Carry Case, Fiber Cleaver, Fiber Stripper, AC Adaptor, AC Power Cord

PRO-810-STK1 PRO-810 Technician Kit

The Kit includes: Splicer, 100 Splice Sleeves, (LS-201Q) Quad Laser Source, (PM-102A) Power Meter, (VFL-1A) Visual Fault Locator, 400x Scope, Rugged Nylon Bag

\$9,995.00



#### Features

- High definition LCD display
- Profile Alignment System Technology (PAS)
- Core or cladding alignment
- Dual Independent Heaters, 30 Sec. tube-heat time
- 3 magnification modes, max. 360 magnification
- Four display modes, fiber core visible
- 8 Sec. splice time
- Li-on battery
- Max. wind velocity of 15m/s
- Splicing method: auto, manual
- Store 8000 groups of splice results
- USB interface for updates + result transfers

#### **Rentals also available**

Week	Price
1	\$450.00
2	\$720.00
4	\$950.00

Ask about our extended warranty and loaner programs for PRO splicers!\*

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# PR<sup>©</sup>-790 Actvie V-Groove Fusion Splicer

The PRO-790 is a perfect complement to our existing Fusion Splicer product line. The PRO-790 is designed to be lightweight (4.5 lbs) and can fit in the palm of your hand (just under 5 inches).

The PRO-790 offers adjustable fiber holders which can accommodate 250µ, 900µ and 3mm fiber. Additionally, an SOC (Splice-On Connector) holder is also available. This unit provides performance and results typically only found in splicers costing thousands of dollars more!

To accommodate the growing use of splice-on connectors, the PRO-790 even features a custom heat-oven holder designed specifically for splice-on connectors.



#### **SPECIFICATIONS**

Applicable Fibers	SM, MM, DS, NZ-DS(G655), G655, G657 and others	
Fiber Diameter	Cladding Diameter: 80-150 um; Coating Diameter: 100~1000 um	
Average Splice Loss	0.03db(MM),0.05db(SM),0.08db (DS/NZDS/G.655/G.657)	
Return loss	60dB	
Tension Test	2.0N	
Splice Time	8 seconds	
Protection sleeve length 25mm, 40mm, 60mm		
Heater Time	ater Time 35 Sec.	
Splicing program	Automatic Setting	
Alignment	Active V-Groove (Manual adjustment for 1 V-Groove to Simulate Core Alignment)	
Display	Color3.5 Inch TFT, 200 magnifications	
nterface USB		
Splice Memory	10000	
Electrode Span	5000 times	
Operating Temp	$-18^{\circ}C \sim 50^{\circ}C (-0.4^{\circ}F \sim 122^{\circ}F)$	
<b>Storage Temp</b> -40 <sup>o</sup> C ~ +80 <sup>o</sup> C (-40 <sup>o</sup> F ~ 176 <sup>o</sup> F)		
Window Protection Max. wind velocity of 15mph		
Power Supply	Internal Li-Battery, DC adaptor	
Battery Capacity	More than 120 times of continuous splices and heats	
Dimension	120mm(L) x 120mm(W) x 115mm(H) (4.7x4.7x4.5in)	
Weight	1.7KG (3.75lbs) (Include battery)	

#### **Features**

- 3.5" Bi-Directional Display
- Extremely Portable
- Attachable Work Light Included (Powered Directly off Splicer)
- Internal Battery
- Fiber Holder System

#### **ORDERING INFORMATION**

 
 PRO-790
 PRO-790
 \$7,995.00

 The Kit includes:
 PRO-790 Splicer, Cleaver, Power/ Battery Accessories, Spare Electrodes, Fiber Holders, Dual Hole Strippers, Drop Cable Strippers, Work Light, Cooling Tray, Alcohol Pump Container, Fiber Transfer Tool, Transit case, Straps (Splicer and Case), Manual

#### PRO-790-STK1 PRO-790 Technician Kit

\$10,375.00

The Kit includes: Splicer, 100 Splice Sleeves, (LS-201Q) Quad Laser Source, (PM-102A) Power Meter, (VFL-1A) Visual Fault Locator, 400x Scope, Rugged Nylon Bag

\*Ask about our extended warranty and loaner programs for PRO splicers!\*

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877-529-9114 sales@fiberoptic.com

# **PR OFS-900** FTTH Fusion Splicer

The Precision Rated Optics OFS-900 Fixed V-Groove Fusion Splicer has been specifically designed and optimized for FTTH applications. Its super-ruggedized rain, dust and shock resistant design means the OFS-900 can easily tolerate harsh working conditions that would instantly disable lesser units.

The ability to accommodate Splice-on-Connectors means you'll work more efficiently, and with a 20 Second heat-up time and a 7 Second splicing time, you'll work faster than ever.

Optimized for those working in FTTH applications, the all-new OFS-900 packs a punch, adding huge functionality to your toolbox at an incredibly competitive price point.



#### **SPECIFICATIONS**

Size of Clad125µmSize of Coating250 ~ 900µmAverage Loss Ratio0.03dB (SM), 0.02dB (MM), 0.06dB (NZDS, DS)Splicing Time7 secHeating Sleeve20 sec (0.9mm ), 70 sec (Indoor, 3.0mm)Length of Sleeve60mm/40mm	
Average Loss Ratio0.03dB (SM), 0.02dB (MM), 0.06dB (NZDS, DS)Splicing Time7 secHeating Sleeve20 sec (0.9mm ), 70 sec (Indoor, 3.0mm)	
Splicing Time     7 sec       Heating Sleeve     20 sec (0.9mm ), 70 sec (Indoor, 3.0mm)	
Heating Sleeve     20 sec (0.9mm ), 70 sec (Indoor, 3.0mm)	
Length of Sleeve 60mm/40mm	
Tensile Strength1.96N	
Data Storage         2,000 Operations	
Cable 0.25mm, 0.9mm, 2.0mm, 3.0mm, Indoor Cable	
Dimensions (WxLxH) 140 x 179 x 87 mm	
Weight         1.2 Kg (Include Rubber, Battery 2ea)	
Power Supply DC Li-Polymer Battery, 100~240V AC Adapter	
External Power DC 12V (Vehicle Accessory Jack)	
Battery Capacity 1400 mAh (x2)	
Battery Lifespan Typically 140 cycles (0.9mm fiber)	
Operating Temperature -10 °C~ 50 °C	
Storage Temperature -40 °C ~ 80 °C	

#### **Features**

- Compact Design for Tight Workspaces
- Applicable for SOC (Splice-on-Connector)
- Water, Dust and Shock Resistant
- Efficient Two-Heater System
- Competitvely Priced

#### ORDERING INFORMATION

 OFS-900
 OFS-900 Fixed V-Groove Splicer
 \$5,500.00

 The Kit includes: Fusion Splicer, AC Adapter, Battery Charger, DC Li-Polymer Battery, 900um Fiber Holders, Spare Electrode, Cooling Tray, Precision Cleaver, Manual Stripper, Carrying Case, SOC Fiber Holder, Manual.

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# **PR** OFS-920 Fixed V-Groove FTTX Fusion Splicer

The Precision Rated Optics OFS-920 All-in-One FTTC Fixed V-Groove Fusion Splicer has been uniquely engineered to accomplish all major fusion splicing tasks: heating, stripping, cleaning, cleaving, splicing and sleeving.

The OFS-920 touch-screen and intuitive interface make it easy to navigate the various functions quickly and efficiently. The OFS-920 is also compatible with Splice-On-Connectors, allowing you to work faster and more efficiently.

Is it tough? Oh yeah... The OFS-920 is water, dust and shock resistant and able to survive working conditions that would easily disable lesser units. If you need an all-in-one fusion splicer that can literally do it all, don't hesitate to add the OFS-920 to your toolbox.



#### **SPECIFICATIONS**

Alignment	Fixed V-Groove (Clad to Clad)	
Cladding Diameter	125µm	
Coating Diameter	250 ~ 900μm	
Average Splice Loss	SM: 0.03dB, MM: 0.02dB, NZDS,DS: 0.06dB	
Splicing Time	7 sec	
Heating Time	20 sec (0.9mm Fiber), 70 sec (Indoor, 3.0mm Cable)	
Sleeve Length	30mm (0.9mm Fiber), 40mm (2.0, 3.0mm, Indoor Cable)	
Tension Test	1.96N	
Splice Memory	2000	
Dimensions (WxLxH)	135 x 200 x 82 mm	
Weight	1.5 kg (Body 1.1kg, Battery 120g x 2)	
Power Supply	DC Li-Polymer Battery, 100~240V AC Adapter	
Additional Power (Optional)	DC 12V (Vehicle Accessory Jack)	
Battery Capacity	1400 mAh (x2)	
Splice/Heat Operations w/Batt.	> 120 Operations (0.9mm Fiber)	
Operating Temp	-10 °C ~ 50 °C	
Storage Temp	-40 °C ~ 80 °C	
Alignment	0.25mm, 0.9mm, 2.0mm, 3.0mm, Indoor Cable	

#### **Features**

- Touch Screen with 4.3 Color Monitor
- Water, Dust and Shock Resistant
- Long Battery Life (More than 320 Charge Cycles)
- Attached Sleeve Loader
- Dual-Sleeve Heater
- All-in-One Design (Fixed V-Groove)
- Thermal Stripper
- Compatible with SOC Connectors (Optional)
- 250um/900um Micron Fiber Holders

#### **ORDERING INFORMATION**

OFS-920	OFS-920 Fixed V-Groove FTTX Splicer	\$7,500.00
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The Kit includes: Splicer, AC Adapter, Battery Charger, DC Li-Polymer Battery, 250mm Fiber Holders, Spare Electrode, Carrying Case, Manual.

PRECISION RATED OPTICS

# **PR OFS-930** Core Alignment Fusion Splicer

The Precision Rated Optics OFS-930 Core Alignment Fusion Splicer has everything you'll need to get the job done, including a cleaner dispenser, one-step precision cleaver, dual-oven heater and, of course, a super-fast fusion splicer.

Built to last, the OFS-930 is water, dust and shock resistant. Built-in dual sleeve heaters increase efficiency and the thermal stripper can cleanly strip your fiber in just 1.5 seconds!

Achieving over 320 splicing operations per charge, the OFS-930 has enough battery capacity to work all day long without recharging.

If you want one of the best core alignment, all-in-one fusion splicers available at any price, add the OFS-930 to your toolbox. You'll be glad you did.

#### **SPECIFICATIONS**

Alignment	IPAS Core-to-Core Alignment (Image Pattern Analysis Alignment System)	
Applicable Fibers	SMF (ITU-T G.652), MMF (ITU-T G.651), DSF (ITU-T G.653), NZDSF (ITU-T G.655),EDFA, EI980, Splicing available with different type fiber (SM/MM), ITU-T G.657	
Fiber Diameter	Cladding : 80μm ~ 150μm , Coating : 100μm~ 1000μm (single)	
Fiber Cleave Length	250µm (Coat): 8 ~ 16mm, 900µm: 16mm	
Typical Splice Loss	SMF: 0.02dB, MMF: 0.01dB, DSF: 0.04dB, NZDSF: 0.04dB	
Return Loss	< -60dB	
Splice Time	Typically 9 sec, Tube Heat : Typically 26 sec with S-160 (60mm) Tube	
Program	Spice Mode: 100, Heat Mode: 50	
Storage of Splice Results	Last 2,000 Results (Images: 100 Results)	
Operating Altitude	0 ~ 5000m Above Sea Level	
<b>Operating Condition</b>	-10 °C to 50 °C, Humidity : 95%, Non-Condensing	
Storage Condition	-40 °C to 80 °C , 0 to 95% RH	
Protection	Wind 15 m/s, Water, Dust and Shock Resistant	
Physical Dimensions	138 x 160 x 135mm (Including Monitor & Rubber Boot)	
Weight	2.3Kg (Including Batteries)	
Ports	USB, RCA, External Power	
Power Supply	DC 14.8V Battery (5600mAh), 100 ~ 240V AC Adapter	
Additional Power (Optional)	DC 12V (Vehicle Accessory Port)	
Splicing/Heating Operations w/Batt.	250 Cycle, Lithium Polymer Batteries	
Electrode	> 2,000 Splicing Operations	
Mechanical Proof Test	2N / 4.4N (OPTIONAL)	
Display	Two CMOS Cameras and 4.3" Color LCD Monitor with Touch-Screen	
Fiber View and Magnification	X/Y 300X, 170X	



#### Features

- Core Alignment by IPAS Technology
- Water, Dust and Shock Resistant
- Dual Sleeve Heater
- Touch-Screen with 4.3 Color LCD Monitor
- Attached Sleeve Loader
- Built-in Task Light
- ROHS Compliant

OFS-930

#### **ORDERING INFORMATION**

OFS-930 Core Alignment Splicer \$11,000.00

The Kit includes: Fusion Splicer, AC Adapter, Sleeve Loader, Battery Pack, Precision Cleaver, Alcohol Dispenser, Spare Electrodes, Carrying Case, Cooling Tray, Fiber Stripper, Manual. **ber** 

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# **PR© OFS-950S** All-in-One Core Alignment Fusion Splicer

The Precision Rated Optics OFS-950S all-in-one, core alignment fusion splicer contains a built-in automatic thermal stripper, cleaner dispenser, one-step precision cleaver and dual-oven heater. The OFS-950S features touch-screen operation and over 300 splice cycles per battery charge. The OFS-950S can splice any single fiber, single-mode or multi-mode fiber and is fully compatible with splice-on connectors!

#### **SPECIFICATIONS**

IPAS Core-to-Core Alignment (Image Pattern Analysis Alignment System)	
SMF (ITU-T G.652), MMF (ITU-T G.651), DSF (ITU-T G.653), NZDSF (ITU-T G.655), EDFA, EI980, Splicing Available with Various Fiber Types (SM/MM), ITU-T G.657	
Single: Cladding Diameter 80µm ~ 150µm , Coating Diameter 100µm ~ 1000µm	
250µm (Coat) : 8 ~ 16mm, 900µm : 16mm	
SMF: 0.02dB, MMF: 0.01dB, DSF: 0.04dB, NZDSF: 0.04dB	
> -60dB	
Typically 9 sec, Tube Heat: Typically 20 ~ 26 sec with S-160 (60mm) Tube	
Last 2,000 Results (Image: 100 results)	
0 ~ 5000m Above Sea Level	
-10 °C to 50 °C, Humidity: 95%, Non-Condensing	
-40 °C to 80 °C, 0 to 95% RH	
140x225x125mm (Include Monitor & Rubber Boot)	
2.95Kg (Including Batteries)	
USB, RCA, External Power	
DC 14.8V Lithium Polymer Batteries (7700mAh), 100 ~ 240V AC Adapter	
320 Splicing Operations	
> 2,000 Splicing Operations	
2N / 4.4N (OPTIONAL)	
Two CMOS Cameras and 4.3" Color LCD Monitor with Touch-Screen	
X/Y 300X, 170X	



#### **Features**

- All-in-One Design
- Navigational Touch-Screen with 4.3 Color Monitor
- 250um/900um Micron Fiber Holders
- Thermal Stripper
- Long Battery Life (More than 320 Charge Cycles)
- Water, Dust and Shock Resistant
- Attached Sleeve Loader
- Dual-Sleeve Heater

**OFS-950S** 

• Compatible with SOC Connectors (Optional)

#### **ORDERING INFORMATION**

OFC OFOC Come Alian accent Caliana	¢42.000.00
OFS-950S Core Alignment Splicer	\$12,900.00

The Kit includes: Fusion Splicer with Auto Stripper, Cleaner Unit and Cleaver, AC Adapter, Sleeve Loader, Spare Electrodes, Battery Pack, Cooling Tray, Carrying Case, User Manual.

PRECISION RATED OPTICS

SPLICING EQUIPMENT

# **PR© OFS-950R** All-in-One Ribbon Fusion Splicer

The OFS-950R addresses the high demand for ribbon splicing, which is becoming more common in the industry. The OFS-950R boasts an ergonomic "all-in-one" design which allows a technician to complete all five splicing operations (stripping, cleaning, cleaving, splicing and sleeving) quickly and conveniently. The compact design also eliminates the need for a large work space and includes all of the prep tools (manual stripper, cleaver and alcohol bottle) right onboard!

The automatic thermal stripper quickly and easily strips 250um and 900um fiber. Thermal stripping eliminates the possibility of scratching, which often occurs with mechanical stripping.



#### **SPECIFICATIONS**

Applicable Type of Fibers	SM(ITU-T G.652), MM(ITU-T G.651), DS(ITU-T G.653), NZDS(ITU-T G.655)
Fiber Count	Single Fiber, 2~12 fiber
Applicable Fiber Dimensions	Single: Cladding Diameter 125 , Coating Diameter 250, 900 Ribbon: Cladding Diameter 125 , Ribbon Fiber Thickness 0.27 to 0.32mm
Fiber Setting and Cleaved Length	8mm
Splicing Modes	Splice Mode: 100, Heat mode: 50
Typical Splice Loss	SM: 0.05dB, MM: 0.02dB, DS: 0.08dB, NZDS: 0.08dB
Return Loss	> 60dB
Splicing Time	Typically 20sec with Standard SM (ITU-T G.652)
Splice Loss Estimate	Available
Sleeve Heating Time	35 sec
Applicable Protection Sleeve	45mm (Fiber), 28mm or 32mm (Connector)
Storage of Splice Result	The Last 1,000 Results to be Stored in the Internal Memory (Image 100 results)
Tension Test	2N / 4,4N (Option)
Operating Condition	Altitude: 0~3,660m Above Sea Level, Temperature: -10 ~50 , Humidity: 0~95%, Wind: 15m/s, Non-Condensing, Dust Proof, Shock Proof
Storage Condition	Temperature: -40 ~80 , Humidity: 0~95%
Dimensions (WxLxH)	140mm x 225mm x 125mm (5.5in x 8.85in x 4.9in) (Include Monitor, Rubber)
Weight	2.3kg (Including Battery)
Viewing Method and Display	Two CMOS Cameras and 3.5" color LCD Monitor with Touch Panel
Fiber View and Magnification	X/Y : 300X/170X
Power Supply	DC 14.8V Battery (7,700mAh), 100 ~ 240V AC Adapter
No. of Splice Cycles with Battery	320-Cycle Lithium Polymer Battery
Electrode Life	More than 1,000 Splices
Terminals	USB, External Power (DC 12V Available for Car Lighter Input)

#### **Features**

- Shock, Dust and Water Resistant
- Navigational Touch Screen with 4.3 Color Monitor
- Long Battery Life (More than 320 Charge Cycles)
- Attached Sleeve Loader
- Dual Sleeve Heater
- All-in-One Design
- Thermal Stripper
- Compatible with SOC Connectors (Option)
- 250um/900um Micron Fiber Holders
- 12-Fiber Ribbon Holders

#### **ORDERING INFORMATION**

OFS-950R

OFS-950R Ribbon Splicer

\$13,900.00

The Kit includes: Arc Fusion Splicer, AC Adapter, Sleeve Loader, Spare Electrodes, 250/900 Micron / 12-Ribbon Fiber Holders, Battery Pack, Cooling Tray, Holder, Tool Box, User Manual, Carrying Case Fiber(•ptic.com

# **FSM-12S** Fusion Splicer

The Fujikura 12S is the world's smallest, lightest and most portable fusion splicer available today. Despite its incredibly small size, this ruggedized, full-featured unit offers unmatched versatility for splicing in the most challenging environments. The innovative transit case and work tray provide multiple options for the best utilization of available work space while the long life battery provides power for up to 100 splice cycles which include application of the splice protection sleeve.

The Fujikura 12S incorporates features typically found only in more expensive models. The large 4.5" monitor provides a crystal clear image, even in the brightest sunlight, for evaluating splice quality. The electrode life has been extended to 3,000 splices, minimizing downtime for replacement and stabilization. Software updates are accomplished via the internet allowing users to quickly update their software as new splice programs become available. The fully ruggedized chassis provides for shock, dust and moisture protection while the two camera observation system provides for accurate fiber alignment and loss estimation calculations. The Fujikura 12S is also fully compatible with the FuseConnect line of fusion installable connectors.

Backed by the best service team in the industry, the Fujikura 12S is the ideal splicer to use when portability, ruggedness, versatility and reliability are needed for your n splicing application.

#### **SPECIFICATIONS**

Applicable Fibers	Single-mode (G.652 & G.657), Multimode (G.651), DSF (G.653), NZDS (G.655)
Cladding Diameter	125 µm
Coating Diameter	160 $\mu m$ to 3 mm by fiber holder system
Fiber Cleave Length	5 mm to 13 mm
Typical Splice Loss	0.05 dB (SM), 0.02 dB (MM), 0.08 dB (DS) and 0.08 dB (NZDS)
Splicing Time	Typical 15 sec with SM
Tube Heater	Typical 30 sec with FP-03 (60 mm) sleeve
Splice Mode / Heating Mode	Total 100 splice modes / 30 heating modes
Tension Test	1.96 to 2.25 N
Result Storage	Last 2,000 splices
Magnification	100X magnification
Viewing Method	2 axis CMOS camera with 4.47 inch color LCD
Number of Splice/ Heat with Battery	Typical 100 cycles with BTR-10
Electrode Life	3,000 splices
Operating Condi- tion	Altitude: 0 to 3,660 m above sea level, Wind: 15 m/sec Temperature: -10 to 50 deg C, Humidity: 0 to 95% RH, non-dew
Rugged Features	Shock resistance: 76 cm (30 inch) bottom surface drop Dust resistance: Exposure to dust (0.1 to 500 µm dia. Alumina Silicate) Rain resistance: H=10 mm/hr for 10 min
Dimensions	121W x 162D x 57H (mm) / 4.76 W x 6.38 D x 2.24 H (inches)
Weight w/Battery	776 g / 1.71 lbs.
Warranty	1 Year Warranty

Ask about our extended warranty and loaner programs for splicers!



#### **Features**

- World's smallest splicer at 4.76 "W x 6.38 "D x 2.24" H
- Fully ruggedized for shock, moisture and dust resistance
- Transit case converts to easy to use workstation
- Dual camera, fixed v-groove alignment technology
- Extended life electrodes
- Long life battery (100 splices/shrinks per charge)

#### **ORDERING INFORMATION**

S015521	Fujikura 12S Fusion Splicer	\$4,795.00
(installed), FH-6 (Pair), Operatio	les: Fujikura 125 Fusion Splicer, ADC-19 AC Adapter, BTR 50-250 Fiber Holders (Pair), ACC-09 Power Cord, ELCT2-1 n Manual on CD, Quick Reference Guide, AP-01 Alcohol d CC-29 Transit Case	2 Spare Electrodes
S015522	Fujikura 12S Fusion Splicer Kit 1	\$5,995.00
Battery Pack (ir 09 Power Cord	les: Fujikura 125 Fusion Splicer, CT-30 Cleaver, ADC-19 Av stalled), FH-60-250 Fiber Holders (Pair), FH-60-900 Fiber I, ELCT2-12 Spare Electrodes (Pair), Operation Manual on Alcohol Container, SD01 Screwdriver and CC-29 Transit C	Holders (Pair), ACC- CD, Quick Reference
S015530	12S Fusion Splicer Kit 2	\$5,595.00
Battery Pack (ir 09 Power Cord	les: Fujikura 125 Fusion Splicer, CT-10 Cleaver, ADC-19 A Istalled), FH-60-250 Fiber Holders (Pair), FH-60-900 Fiber I, ELCT2-12 Spare Electrodes (Pair), Operation Manual on Alcohol Container, SD01 Screwdriver and CC-29 Transit C	Holders (Pair), ACC- CD, Quick Reference
ΟΡΤΙΟ	NAL ACCESSORIES AND SUI	PPLIES
S015533	CT-10 Cleaver (for single fibers)	\$592.00
S014076	CT-30 Cleaver (for single to 12 ribbon fibers)	\$1,036.00
S014548	FH-60-250 (250 μm single fiber)	\$240.50

S014548	FH-60-250 (250 μm single fiber)	\$240.50
S014549	FH-60-900 Fiber Holders (900 μm single fiber)	\$240.50
S015528	FH-60-DC250 (250 μm drop cable)	\$740.00
S014696	FH-FC-20 (900 µm within 2.0 mm sheathing)	\$68.45
S014695	FH-FC-30 (900 µm within 3.0 mm sheathing)	\$68.45
S015527	BTR-10 Battery Pack	\$370.00
S014028	ELCT2-12 Electrodes	\$100.00
S015523	ADC-19 AC Adapter	\$185.00
S014390	ACC-09 Power Cord	\$18.50
S015525	AP-01 Alcohol Container	\$37.00
S015524	CC-29 Transit Case	\$333.00

Fiber Optic.com

# **FSM-19S** Fixed V-Groove Fusion Splicer

The Fujikura 19S is a low cost, fixed v-groove single fiber splicer with similar features found on the Fujikura 70S. Incorporating the proven ruggedized features pioneered by Fujikura, the 19S has added automated and enhanced user control features to increase splicing efficiency. A user programmable, automated wind protector expedites the splicing process by automatically closing to initiate the splice process, and opening upon splice completion. Fully programmable "auto open sheath clamps" open one sheath clamp, after the tensile test, to prepare the fiber for removal. A new automated "clamshell design" tube heater applies heat to both sides of the splice protection sleeve resulting in a faster shrink time. Ruggedness and durability are greatly enhance by a mirror-less optical system and "severe-impact resistant" monitor. An innovative transit case doubles as a built-in or mobile workstation and makes splicing easier than ever before

#### **SPECIFICATIONS**

Applicable Fibers	Single-mode (G.652 & G.657), Multimode (G.651), DS (G.653), NZDS (G.655)
Cladding Diameter	125 µm
Coating Diameter	100 μm to 1,000 μm
Fiber Cleave Length	5 to 16 mm
Typical Average Splice Loss	0.05 dB with SM, 0.02 dB with MM, 0.08 dB with DS, 0.08 dB with NZDS, measured by cut-back method relevant to ITU-T and IEC standards
Splicing Time	SM FAST mode: 11 seconds; SM AUTO mode: 11 seconds; AUTO mode: 11 seconds
Arc Calibration Method	Automatic, real-time and by using results of previous splice when in AUTO mode, manual arc calibration function available
Splicing Modes	100 preset and user programmable modes
Splice Loss	Estimate Based upon dual camera core alignment data
Storage of Splice Result	Last 2,000 results to be stored in the internal memory
Fiber Display	X or Y, or both X and Y simultaneously. Front or rear monitor display options with automated image orientation
Magnification	320X for single X or Y view, or 200X for X and Y view
Viewing Method	Dual cameras with 4.73 inch TFT color LCD monitor
Operating Condition	0 to 3,660 m above sea level, 0 to 95%RH and -10 to 50°C respectively
Mechanical Proof Test	1.96 to 2.25N
Tube Heater	Built-in tube heater with 30 heating modes; auto-start function
Tube Heating Time	17 seconds with FP3 (40), 5-16 seconds with Fujikura micro sleeves
Protection Sleeve Length	60 mm, 40 mm, micro
Splice/Heat Cycles w/ Battery	Typical 200 cycles with power save functions activated
Power Supply	Auto voltage selection from 100 to 240 V AC or 10 to 15 V DC with ADC-18, 14.8 V DC with BTR-09 battery
Terminals	USB 1.1 (USB-B type) for PC communication. Mini-DIN (6-pin) for HJS-02/03 and SH-8 tube heater
Wind Protection	Maximum wind velocity of 15 m/s. (34 mph)
Dimensions	146 W x 159 D x 150 H (mm) / 5.75 W x 6.25 D x 5.9 H (inches)
Weight	2.3 kg (5.1 lbs) with AC adapter; 2.5 kg (5.5 lbs) with battery



#### **Features**

- Automated and programmable wind protector
- Fully ruggedized for shock, dust and moisture
- Li-ion battery with 180 splice/heat cycles per charge
- 5 mm cleave length for splice on connector or small package needs
- Sheath clamp or fiber holder operation
- On-board training and support videos
- Internet software upgrades
- Multi-function transit case with integrated workstation

#### ORDERING INFORMATION

S015679	Fujikura 19S Fusion Splicer	\$5,995.00
(pair), S70A Shea	: ADC-18 AC Adapter, ACC-14 AC Cord, ELCT2-20A th Clamp, USB Cable, Alcohol Pot, Screw Driver, Splic Guide, Video Instruction Manual and CC30 Transit Ca	er Carrying Strap,
S015680	Fujikura 195 With Cleaver	\$6,995.00
Spare Electrodes	: CT30A Cleaver, ADC-18 AC Adapter, ACC-14 AC C (pair), S70A Sheath Clamp, USB Cable, Alcohol Dispe trap, Quick Reference Guide, Video Instruction Manu 19 Strap	nser, Screw Driver,
S015681	Fujikura 19S With Cleaver and Battery	\$7,325.00
AC Adapter, ACC USB Cable, Alcoh	: BTR-09 Battery, DCC-18 Battery Charge Cord, CT30 -14 AC Cord, ELCT2-20A Spare Electrodes (pair), S7C ol Dispenser, Screw Driver, Splicer Carrying Strap, Qu Manual and CC30 Transit Case with Carrying Strap	A Sheath Clamp,

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Fiber • ptic.com

# **FSM-70S** Fusion Splicer

The Fujikura 70S is the world's fastest and most robust core alignment fusion splicer. Incorporating the proven ruggedized features pioneered by Fujikura, the 70S has added automated and enhanced user control features to increase splicing efficiency.

A user programmable, automated wind protector expedites the splicing process by automatically closing to initiate the splice process, and opening upon splice completion. Fully programmable "auto open sheath clamps" open one sheath clamp, after the tensile test, to prepare the fiber for removal. A new automated "clamshell design" tube heater applies heat to both sides of the splice protection sleeve resulting in a 14-second shrink time. The result is a total splice process time of approximately 21 seconds! Ruggedness and durability are greatly enhance by a mirror-less optical system and "severe-impact resistant" monitor.

Battery capacity is now 200 splices/shrinks. An innovative transit case doubles as a built-in or mobile workstation and makes splicing easier than ever before.

#### **SPECIFICATIONS**

Applicable Fibers	Single-mode (G.652 & G.657), Multimode (G.651), DS (G.653), NZDS (G.655)
Cladding Diameter	80 µm to 150 µm
Coating Diameter	100 µm to 1,000 µm
Fiber Cleave Length	5 to 16 mm
Typical Splice Loss	0.02 dB with SM, 0.01 dB with MM, 0.04 dB with DS, 0.04 dB with NZDS, measured by cut-back method relevant to ITU-T and IEC standards
Splicing Time	SM FAST mode - 7 seconds; SM AUTO mode - 12 seconds; AUTO mode - 15 seconds
Arc Calibration	Automatic, real-time and by using results of previous splice when in AUTO mode, manual arc calibration function available
Splicing Modes	100 preset and user programmable modes
Splice Loss	Based upon dual camera core alignment data
Fiber Display	X or Y, or both X and Y simultaneously. Front or rear moni- tor display options with automated image orientation
Magnification	300X for single X or Y view, or 160X for X and Y view
Tube Heater	Built-in tube heater with 30 heating modes; auto-start function
Tube Heating Time	Typical 14 seconds with FP-03 sleeve, 17 seconds with FP3 (40), 5-16 seconds with Fujikura micro sleeves
Viewing Method	Dual cameras with 4.73 inch TFT color LCD monitor
Splices Per Charge	Typical 200 cycles with power save functions activated
Power Supply	Auto voltage selection from 100 to 240 V AC or 10 to 15 V DC with ADC-18, 14.8 V DC with BTR-09 battery
Terminals	USB 1.1 (USB-B type) for PC communication. Mini-DIN (6- pin) for HJS-02/03 and SH-8 tube heater
Wind Protection	Maximum wind velocity of 15 m/s. (34 mph)
Oper. Condition	0 to 5,000 m above sea level, 0 to 95%RH and -10 to 50°C respectively
Dimensions	146 W x 159 D x 150 H mm (5.75 W x 6.25 D x 5.9 H in)
Weight	2.5 kg (5.5 lbs) with AC adapter ADC-18; 2.7 kg (5.95 lbs) with BTR-09 battery
Warranty	2 year warranty

Ask about our extended warranty and loaner programs for splicers!



#### **Features**

- Automated and programmable wind protector
- 14-second automated tube heater
- Fully ruggedized for shock, dust and moisture
- Li-Ion battery with 200 splices/shrinks per charge
- 5 mm cleave length for splice on connector or small package needs
- Sheath clamp or fiber holder operation
- On-board training and support videos
- Internet software upgrades
- Multi-function transit case with integrated workstation



#### **ORDERING INFORMATION**

S015580	70S Fusion Splicer (machine only)	\$12,815.00
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The Kit includes: ADC-18 AC Adapter, ACC-14 AC Cord, ELCT2-20A Spare Electrodes (pair), S70A Sheath Clamp, USB Cable, Alcohol Pot, Screw Driver, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual and CC30 Transit Case with Carrying Strap

S015590	70S Fusion Splicer Kit (with cleaver)	\$13,900.00
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The Kit includes: CT30A Cleaver, ADC-18 AC Adapter, ACC-14 AC Cord, ELCT2-20A Spare Electrodes (pair), S70A Sheath Clamp, USB Cable, Alcohol Dispenser, Screw Driver, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual, and CC30 Transit Case with Carrying Strap

S015591	70S Fusion Splicer Kit (with cleaver, battery and cord)	\$14,225.00
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The Kit includes: BTR-09 Battery, DCC-18 Battery Charge Cord, CT30A Cleaver, ADC-18 AC Adapter, ACC-14 AC Cord, ELCT2-20A Spare Electrodes (pair), S70A Sheath Clamp, USB Cable, Alcohol Dispenser, Screw Driver, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual and CC30 Transit Case with Carrying Strap

OPTIONAL ACCESSORIES AND SUPPLIES		
S014784	CT-10A Cleaver	\$647.50
S014548	FH-60-250 Fiber Holder (pair)	\$240.50
S014549	FH-60-900 Fiber Holder (pair)	\$240.50
S013532	ELCT2-20A Electrodes	\$100.00
S014773	Portable Tripod Workstation	\$495.00
S010532	ASW-02 Splicing Workstation	\$693.75

# **FSM-70R** Fusion Splicer

The Fujikura 70R is equipped with a precision, fixed v-groove for splicing single fibers or ribbon fiber up to 12 fibers. Incorporating the proven ruggedized features pioneered by Fujikura, the 70R has added automated and enhanced user control features to increase splicing efficiency. A user programmable, automated wind protector expedites the splicing process by automatically closing to initiate the splice process, and opening upon splice completion. A new auto-start "clamshell design" tube heater applies heat to both sides of the splice protection sleeve resulting in a 40-second shrink time for 12-fiber ribbon. The result is a total splice process time of approximately 55 seconds!

Ruggedness and durability are greatly enhanced by a mirror-less optical system and "severe-impact resistant" monitor. Battery capacity is now 110 splices/shrinks. An innovative transit case doubles as a built-in or mobile workstation and makes splicing easier than ever before.

#### **SPECIFICATIONS**

Applicable Fibers	Single-mode (G.652 & G.657), Multimode (G.651), DS (G.653), NZDS (G.655)
Fiber Count	Single, 2, 4, 5, 6, 8, 10, 12
Cladding Diameter	125 µm
Coating Diameter	Ribbon: 0.25 mm to 0.4 mm, Single: 250 $\mu m$ and 900 $\mu m$
Fiber Cleave Length	10 mm
Typical Average Splice Loss	0.05 dB with SM, 0.02 dB with MM, 0.08 dB with DS, 0.08 dB with NZDS; measured by cut-back method relevant to ITU-T and IEC standards
Splicing Time	Typical 15 seconds with standard single-mode fiber
Arc Calibration Method	Automatic, real-time by using results of previous splice when in AUTO mode; manual arc calibration function available
Splicing Modes	100 preset and user programmable modes
Splice Loss	Estimate Based upon dual camera cladding alignment data
Storage of Splice Result	Last 2000 splice results stored in the internal memory
Fiber Display	X or Y, or both X and Y simultaneously; front or rear monitor display options with automatic image orientation
Magnification	35X to 90X
Viewing Method	Dual cameras with 4.7 inch TFT color LCD monitor with anti-reflective coating
Operating Condition	0 to 3,660 m above sea level, 0 to 95% RH, and -10 to 50°C respectively
Mechanical Proof Test	1.96 to 2.25 N
Tube Heater	Built-in tube heater with 30 heating modes; auto-start function
Tube Heating Time	Typical 40 seconds with FP-5 sleeve, 17 seconds with FP3 (40), 5-15 seconds with Fujikura micro sleeves
<b>Protection Sleeve Length</b>	60 mm, 40 mm, Micro
Splices Per Charge	Typical 110 cycles with power save functions activated
Power Supply	Auto voltage selection from 100 to 240V AC or 10 to 15V DC with ADC-13, 13.2V DC with BTR-08 battery
Terminals	USB 1.1 (USB-B type) for PC communication, Mini-DIN (6-pin) for HJS-02/03 and SH-8 tube heater
Wind Protection	Maximum wind velocity of 15m/s (34 mph)
Dimensions	146 W x 159 D x 150 H mm (5.7 W x 6.3 D x 5.9 H in)
Weight	2.3 kg (5.1 lbs) with AC adapter; 2.5 kg (5.5 lbs) with battery



#### Features

- Automated and programmable wind protector
- 40-second automated tube heater
- Fully ruggedized for shock, dust and moisture
- Li-ion battery with 110 splices/shrinks per charge
- On-board training and support videos
- Internet software upgrades
- Multi-function transit case with integrated workstation

#### **ORDERING INFORMATION**

S015669	70R Fusion Splicer (machine only)	\$12,815.00	
<b>The Kit includes:</b> ADC-18 AC Adapter, ACC-14 AC Cord, ELCT2-20A Spare Electrodes (pair), FH-50-12 Fiber Holder, USB Cable, Alcohol Dispenser, Screw Driver, Sleeve Loader, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual and CC30 Transit Case with Carrying Strap			
S015670	70R Fusion Splicer Kit (with cleaver)	\$13,900.00	
The Kit includes: CT30 Cleaver, HJS-02 Stripper, ADC-18 AC Adapter, ACC-14 AC Cord, ELCT2-20A Spare Electrodes (pair), FH-50-12 Fiber Holder, USB Cable, Alcohol Dispenser, Screw Driver, Sleeve Loader, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual and CC30 Transit Case with Carrying Strap			
S015671	70R Fusion Splicer Kit (with cleaver, battery and cord)	\$14,225.00	

The Kit includes: BTR-09 Battery, DCC-18 Battery Charge Cord, CT30 Cleaver, HJS-02 Stripper, ADC-18 AC Adapter, ACC-14 AC Cord, ELCT2-20A Spare Electrodes (pair), FH-50-12 Fiber Holder, USB Cable, Alcohol Dispenser, Screw Driver, Sleeve Loader, Splicer Carrying Strap, Quick Reference Guide, Video Instruction Manual and CC30 Transit Case with Carrying Strap.

OPTIONAL ACCESSORIES AND SUPPLIES		
S014784	CT-10A Cleaver	\$647.50
S014548	FH-60-250 Fiber Holder (pair)	\$240.50
S014549	FH-60-900 Fiber Holder (pair)	\$240.50
S013532	ELCT2-20A Electrodes	\$100.00
S014773	Portable Tripod Workstation	\$495.00
S010532	ASW-02 Splicing Workstation	\$693.75

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# **TYPE-25eU/S/M** TomCat<sup>™</sup> FTTH Fusion Splicer

The new Type-25e TomCats incorporate all the features, functions and proven reliability of the Type-25 family—the industry's most popular handheld splicers for FTTx, premise, and restoration applications—but with numerous enhancements. The new TomCats feature improved optical technology utilizing your choice of an economical one camera system or an industry standard dual camera splice loss estimation system. The improved optical technology, combined with a quicker splice protection sleeve heater, allows the unit to deliver a typical splice time in less than 11 seconds for SMF or MMF.

The units are also compatible with Sumitomo's new Lynx—CustomFit<sup>™</sup> Splice-on Connector, which makes index matching gel, hand polishing, epoxies and splice trays obsolete. The Type-25e family features an improved fiber holder system to increase splice repeatability while making the units effortless to learn and operate.

#### Features:

- Dual Camera Splice Loss Estimation
- Economically Priced Single Camera Unit
- 60 Splice & Heat Shrinks per Battery Charge
- Multiple Language Options Including Spanish
- User-Friendly Menu Selection System
- Unified Holders for Type-25e/Type-66
- Unified Electrodes for Type-25e/Type-66/Type-39
- Built-in Battery Charger
- AC Adapter Incorporated within Unit
- Lynx -- CustomFit Splice-On Connector Compatible
- Automatic Arc Test Function

#### **SPECIFICATIONS**

Model	Type-25eU	Type-25eS	Type-25eM
SMF/MMF	0.10/0.04dB	0.05/0.03dB	0.05/0.03dB
RoHS	Complia	ant (environmenta	ally friendly)
Alignment Method		Fixed V-Groove	2
Applicable Fiber Types	SI	MF, MMF, DSF, NZ	2-DSF
Fiber Count	1ct.	1ct.	up to 4ct. ribbon
Splice Loss Estimation	No	Yes	Yes
Fiber Placement Fiber	Holder Syste	em (for Type 25e/T	ype 66/Type-65)
Cladding Diameter	125 µm		
Typical Splice Loss	Identical Fibers		
SMF/MMF	0.10/0.04dB	0.05/0.03dB	0.05/0.03dB
Typical Heaters Cycle	40 seconds		
Typical Splice Time	11 seconds		
Splices Per Charge	60 Splice & Heat Shrink Cycles per Charge		
Arc Test	Compensates for Environmental Conditions		
External Interface	12 Volt DC Output for Accessories USB Port for Quick PC Transfers		
Internal Data Storage	1500		
Lynx—CustomFit™ Splice-O	n Connector Compatible		
Powering Options	Internal Battery Charger Internal AC Adapter		
Warranty	2-year Limited Warranty		

Ask about our extended warranty and loaner programs for splicers!

Check out Sumitomo's Lynx Splice-On Connectors page - 89



#### **ORDERING INFORMATION**

TYPE-25EU-KIT-1	Type-25eU Fusion Splicer Kit	\$4,890.00
	(splicer only)	

The Kit includes: Type-25eU Fusion Splicer, Jacket Remover, Battery, Battery Charger, Vgroove Brush, Spare Electrodes, Operation Manual, 250µm Fiber Holders, Hard Carrying Case, 1-year Limited Warranty

TYPE-25EU-KIT-2 Type-25eU Fusion Splicer Kit (w/cleaver)	\$5,920.00
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The Kit includes: Type-25eU Fusion Splicer, Fiber Cleaver, Jacket Remover, Battery, Battery Charger, V-groove Brush, Spare Electrodes, Operation Manual, 250µm Fiber Holders, Hard Carrying Case, 1-year Limited Warranty

TYPE-25ES-KIT-1	Type-25eS Fusion Splicer Kit	\$6,250.00
	(splicer only)	

The Kit includes: Type-25eU Fusion Splicer, Jacket Remover, Battery, Battery Charger, Vgroove Brush, Spare Electrodes, Operation Manual, 250µm Fiber Holders, Hard Carrying Case, 1-year Limited Warranty

TYPE-25ES-KIT-2	Type-25eSFusion Splicer Kit	\$7,450.00
	(w/cleaver)	

The Kit includes: Type-25eU Fusion Splicer, Fiber Cleaver, Jacket Remover, Battery, Battery Charger, V-groove Brush, Spare Electrodes, Operation Manual, 250µm Fiber Holders, Hard Carrying Case, 1-year Limited Warranty

TYPE-25EM-KIT-1	Type-25eM Fusion Splicer Kit	\$8,700.00
	(splicer only)	

The Kit includes: Type-25eM Fusion Splicer, Fusion Splicer, Jacket Remover, Battery, Battery Charger, V-groove Brush, Spare Electrodes, Operation Manual, 250µm Fiber Holders, 4 Fiber Ribbon Holders, Hard Carrying Case, 1-year Limited Warranty

TYPE-25EM-KIT-2	Type-25eM Fusion Splicer Kit	\$10,190.00
	(w/cleaver)	

The Kit includes: Type-25eM Fusion Splicer (w/ cleaver), Fiber Cleaver, Jacket Remover, Battery, Battery Charger, V-groove Brush, Spare Electrodes, Operation Manual, 250µm Fiber Holders, 4 Fiber Ribbon Holders, Hard Carrying Case, 1-year Limited Warranty

\* All the above available as Kit-3, includes an extra battery

#### **OPTIONAL ACCESSORIES** AND SUPPLIES

FOM-TK-VGROOVE	Fiberoptic.com Fusion Splicer Cleaning Kit	\$98.00
FCP-BL	Cleaver Blade (FC-XXX)	\$155.00
FHS-025	250 µm Single Fiber Holder (T-25e)	\$500.00
FHS-09	900 µm Single Fiber Holder (T-25e)	\$500.00
FHM-4	4 Count Ribbon Fiber Holder (T-25eM)	\$500.00
FHM-12	12 Count Ribbon Fiber Holder (T-25eM)	\$500.00
ER-10	Spare Electrodes (T-25e)	\$100.00
BU-HH2	Battery Unit	\$265.00
APF-03-KIT	Aerial Work Platform w/Mounting Arm	\$595.00
VGB-003-CR	V-groove Brush	\$15.00

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Fiber • ptic.com

# **Quantum TYPE-Q101-CA** Core Alignment Fusion Splicer

The Quantum Type-Q101-CA marks the new standard for fusion splicers. The Quantum is the Industry's 1st and ONLY fusion splicer with: fully navigational touch screen interface for optimum user friendliness; SD port for virtually unlimited data storage, plus favorite program, video, audio, and software uploads; remote maintenance capability; the largest fiber view; and the longest electrode life—with the legendary reliability common to all Sumitomo splicers. Although it's also the lightest, smallest, and most advanced core alignment fusion splicer in the industry, the Quantum is more ruggedized with superior dust, shock and water-proof resistance making it the ideal choice for even the harshest environments. The built-in dual heater system, a Sumitomo Electric innovation, reduces heater wait time and improves splicing efficiency by 70%, yielding a splicer with the speed, performance, and specifications that advances fusion splicing technology.

#### **SPECIFICATIONS**

RoHS	Compliant
Fiber Requirement	SMF, MMF, DSF, NZ-DSF, BIF/UBIF
Coating Diameter	100 to 1000 µm
Cladding Diameter	80 to 150 µm
Cleave Length	5-16 mm
Typical Splice Loss	SMF: 0.02dB; MMF: 0.01 dB; NZ-DSF: 0.04dB
Return Loss	<70dB
Alignment Method	High Resolution Direct Core Monitoring & 3-Axis Core Alignment
Built-In Splice Protection	Dual Independent Auto Splice Sleeve Heaters
Heater Cycle Time	28 Seconds; 60mm
Heater Programs Max/Preset	100 / 30
Typical Splice Time	7 Second Splice Time
Splice Programs Max/Preset	300 / 50
Attenuation Splicing	0.1 – 15.0dB
Interface	Touch Panel Input & Switches Built-in Audio & Video SD Memory Card, USB2.0 (USB-mini B) DC Input for Car Battery Operation
Power Requirements	Input: 100V to 240V AC; 50/60 Hz; 10-15V DC
Battery Module	Li-ion; Arc and Heater Cycle Capacity Number Displayed on Monitor
Arc Test	Auto Compensation for Environmental Conditions
Proof Test	Internal 200g
Image Display	320X Single (zoom700X) and 88X Dual Fiber Imaging; X/Y with 2 Cameras
Internal Splice Data Stor- age	10000 (Unlimited with SD card)
Image Storage	64
Size(mm)	120W x 154D x 130H
Display	4.1 Color, Low Glare, High Resolution Touch Screen Monitor
Wind Protection	30mph (15m/s)
Battery Operation	Standard: 200 Splices & Heater Cycles
Weight	2.1kg with Battery
Warranty	2 Year Warranty





#### Features:

<ul> <li>Industry's Only</li> <li>Navigational, T</li> <li>Industry's Only</li> <li>Unlimited Data</li> <li>Program, Video</li> <li>Internet Interfa</li> <li>Maintenance 8</li> </ul>	ent Heat Shrink Ovens High Resolution, Fully ouch Screen Monitor SD Port for Virtually Storage, Plus Favorite D, Audio, and Software Uploads ce for Remote	
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Industry's Univ.	13	
, ,	Video & Audio Playback est Weight & Smallest	
, ,	Alignment Splicer	
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	d Fiber Identification	
	Case with Integrated Work Platform	ı
, , ,	onal Monitor with Automatic Displa	
	Fiber Clamp Selectable	, mension
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ORDERIN	G INFORMATION	
ORDERIN TYPE-Q101-KIT-1		\$12,990.00
TYPE-Q101-KIT-1 The Kit includes: Qu	<b>G INFORMATION</b>	, AC Adapter, Standard
TYPE-Q101-KIT-1 The Kit includes: Qu	G INFORMATION Quantum Fusion Splicer	, AC Adapter, Standard

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# Quantum TYPE-Q101-M12 **Mass Fusion Splicer**

The Quantum Mass marks the new standard in fusion splicing. It is the industry's first and ONLY mass fusion splicer with Automatic Clamp Force Adjustment and Live Time Clamp Force Calibration that allows for realtime fiber offset adjustment for the lowest insertion loss for splicing ribbon fiber and MPO terminations. It's the industry's fastest mass fusion splicer, taking less than 70 seconds for a 12 count fiber splice. Other industry first and ONLY features include: fully navigational touch screen for optimum user friendliness; SD port for virtually unlimited data storage, plus video, audio, and software uploads and downloads; internet interface for remote maintenance; and the longest electrode life - with legendary reliability common to all Sumitomo splicers.

Sumitomo's Quantum Mass is the industry's lightest, smallest, and most advanced mass fusion splicer, yet it's also more rugged with superior dust, shock and water-proof resistance for even the harshest environments. The built-in dual heater system, a Sumitomo Electric innovation, reduces heater wait time and improves splicing efficiency by 70%, yielding a splicer with unprecedented speed, performance, and reliability.

#### **SPECIFICATIONS**

RoHS	Compliant
Applicable Fiber Types	SMF, MMF, DSF, NZ-DSF, BIF/UBIF
Coating Diameter	0.25mm, 0.50mm, 0.90mm
Cladding Diameter	125µm
Cleave Length	10 mm
Typical Splice Loss	SMF: 0.05dB; MMF: 0.02dB; NZ-DSF: 0.08dB
Number Of Fibers	1 - 12
Built-In Splice Protection Sleeve Heaters	Dual Independent Auto Splice Sleeve Heaters with Pretension Clamps
Heater Cycle Time	55 Seconds 60mm
Heater Programs Max/Preset	100
Typical Splice Time	14 Second Splice Time
Splice Programs Max	200
Interface	Touch Panel Input & Switches, Built-in Audio & Video SD Memory Card, USB2.0 (USB-mini B),DC Input for Car Battery Operation
Power Requirements	Input: 100V to 240V AC; 50/60 Hz; 10-15V DC
DC (Battery Operation)	Standard: 110 Splices & Heater Cycles
Battery Module	Li-ion; Arc and Heater Cycle Capacity Number Displayed on Monitor
Arc Test	Auto Compensation for Environmental Conditions
Proof Test	Internal 200g
Language Selection	27
Internal Splice Data Storage	10000 (Unlimited with SD card)
Image Storage	64
Electrode Life	1,500
Display Positions	Adjustable for Optimal Work Flow
Software Update	Internet
Remote Maintenance	Yes
Size(mm)	120W x 154D x 130H
Weight	2.0 kg with battery
Display	4.1 Color, Low Glare, High Resolution Touch Screen Monitor
Shock - Free Fall	76cm from 5 sides
Weatherproof	Waterproof: IPx2, Dustproof: IP5x
Wind Protection	30 mph (15 m/s)





#### Features

- Industry's Only Dual Independent Heat Shrink Ovens with Auto Pretension Clamps
- Industry's Only Automatic Clamp Force Adjustment & Real-Time Clamp Force Calibration to Minimize Fiber to Fiber Offset When Ribbonnizing Loose Tube Fibers or Splicing MPO Connectors
- Industry's Fastest 12 Fiber Splice Under 70 Seconds
- Industry's Only High Resolution, Fully Navigational, Touch Screen Monitor
- Industry's Only SD Port for Virtually Unlimited Data Storage, Plus Program, Video, Audio, and Software Uploads/ Downloads
- Internet Interface for Remote Maintenance & Software Upgrades
- Industry's Only Video & Audio Playback
- Industry's Lightest Weight & Smallest Footprint Mass Fusion Splicer

#### **ORDERING INFORMATION**

TYPE-Q101- M12-KIT-6RM1	Quantum Mass Fusion Splicer Kit 1	\$17,850.00
Cleaver, Heated Jacket	ntum Mass Fusion Splicer, Precision Automatic Blad Remover, Power Cord, V-Groove Brush, Spare Electr Ribbon Fiber Holders, Hard Case	
TYPE-Q101- M12-KIT-6RM2	Quantum Mass Fusion Splicer Kit 1 w/ Ribbonizing Tool and Consumable Kit	\$18,500.00
Automatic Blade Rotati	ntum Mass Fusion Splicer, Ribbonizing Tool, Consur on, Fiber Cleaver, Heated Jacket Remover, Power Co , Manual, 250µm Holders, 12ct. Ribbon Fiber Holde	ord, V-Groove
TYPE-Q101- M12-KIT-MPO1	Quantum Mass Fusion Splicer Kit 2	\$18,750.00
	ntum Mass Fusion Splicer, Cleaver, Heated Jacket Rc Spare Electrodes, Manual, Hard Case, Lynx2 MPO Tr m, Consumable Kit	
TYPE-Q101- M12-KIT-MPO2	Quantum Mass Fusion Splicer Kit 2 w/ Battery	\$18,950.00
Cord, V-Groove Brush,	ntum Mass Fusion Splicer, Cleaver, Heated Jacket Re Spare Electrodes, Manual, Hard Case, Lynx2 MPO T m. Consumable Kit. Battery	

# **Quantum TYPE-Q101-VS** V-Groove Fusion Splicer

The Sumitomo Quantum Type-Q101-VS V-Groove Fusion Splicer is the industry's first and only v-groove splicer with fully navigational touch screen monitor for optimum user friendliness, internet interface for remote maintenance and software upgrades, SD port for virtually unlimited data storage plus video, audio, and software uploads and downloads. Like all Quantum Fusion Splicers, the new Quantum VS is the industry's only v-groove splicer with patented dual independent heat shrink ovens.



#### SPECIFICATIONS

RoHS	Compliant
Applicable Fiber Types	SMF, MMF, DSF, NZ-DSF, BIF/UBIF
Coating Diameter	0.25mm, 0.5mm, 0.9mm
Cladding Diameter	125µm
Cleave Length	10mm
Typical Splice Loss	SMF: 0.05dB; MMF: 0.02 dB; NZ-DSF: 0.08dB
Alignment Method	Fixed V-Groove (Diameter Alignment)
Built-In Splice Protec- tion Sleeve Heaters	Dual Independent Auto Splice Sleeve Heaters
Heater Cycle Time	28 Seconds; 60mm
Heater Programs Max/ Preset	100/30
Typical Splice Time	9 Second Splice Time
Splice Programs Max/ Preset	200 / 50
Interface	Touch Panel Input & Switches, Built-in Audio & Video, SD Memory Card, USB2.0 (USB-mini B), DC Input for Car Battery Operation
Power Requirements	Input: 100V to 240V AC; 50/60 Hz; 10 -15V DC
DC (Battery Operation)	Standard: 180 Splices & Heater Cycles
Battery Module	Li-ion; Arc and Heater Cycle Capacity Number; Displayed on Monitor
Arc Test	Auto Compensation for Environmental Conditions
Proof Test	Internal 200g
Language Selection	7
Internal Splice Data Storage	10000 (Unlimited with SD card)
Image Storage	64
Electrode Life	2,500
Display Positions	Adjustable for Optimal Work Flow



#### Features

• Dual Independent Heat Shrink Ovens that Eliminate Heat Shrink Waiting Time, Increasing Splicing Efficiency by 70% • High Resolution, Fully Navigational, Touch Screen Monitor for **Optimum User Friendliness** • Internet Interface for Remote Maintenance & Software Upgrades • SD Port for Virtually Unlimited Data Storage; Plus Program, Video, Audio and Software Uploads/Downloads • Video & Audio Playback • Industry's Most Advanced V-Groove Fusion Splicer, Yet Economically & Competitively Priced • Ruggedized Design for Shock, Water, and Dust resistance • Automatic Splice Start, Arc Calibration, Heater Start • Hard Carrying Case with Integrated Work Platform • Multiple Positional Monitor with Automatic Display Inversion • Typical Splice Time: 9 seconds • Battery Recharges While Splicing with AC Power • Long Life Battery Lynx2 CustomFit® Splice-On Connector Compatibility • Large Fiber View and Long Electrode Life Typical Splice Loss: SMF:0.05dB;MMF: 0.02dB • Return Loss: <-70dB • RoHS Compliant **ORDERING INFORMATION** Type-O101-VS-Quantum V-Groove Mass Fusion Splicer Kit \$4,885.00 KIT-1 The Kit includes: Type-Q101-VS Quantum Splicer, Hard Transit Case, Work Platform, AC Adapter, Standard Battery, Cleaning Tools, Fiber protection Sleeve Cooling Tray, Manual, Fiber Optic Stripper, 250µm & 900µm Fiber Holders, Cleaning Tools Type-Q101-VS- Quantum V-Groove Mass Fusion Splicer Kit \$5,385.00 KIT-2 w/ Fiber Optic Cleaver The Kit includes: Type-Q101-VS Quantum Splicer, FC-6S-C Fiber Optic Cleaver, Hard Transit Case, Work Platform, AC Adapter, Standard Battery, Cleaning Tools, Fiber protection Sleeve Cooling Tray, Manual, Fiber Optic Stripper, 250µm & 900µm Fiber Holders, Cleaning Tools Type-Q101-VS- Quantum V-Groove Mass Fusion Splicer Kit \$5,585.00 KIT-2R w/ Hand-Held Blade Rotation Cleaver The Kit includes: Type-Q101-VS Quantum Splicer, FC7R Hand-Held Automatic Blade Rotation Cleaver, Hard Transit Case, Work Platform, AC Adapter, Standard Battery, Cleaning Tools, Fiber protection Sleeve Cooling Tray, Manual, Fiber Optic Stripper, 250µm & 900µm Fiber Holders, Cleaning Tools Type-Q101-VS-Quantum V-Groove Mass Fusion Splicer Kit \$5.585.00 KIT-6RSC w/ Bench Top Blade Rotation Cleaver

The Kit includes: Type-Q101-VS Quantum Splicer, FC6RS-C Precision Bench Top Automatic Blade Rotation Cleaver, Hard Transit Case, Work Platform, AC Adapter, Standard Battery, Cleaning Tools, Fiber protection Sleeve Cooling Tray, Manual, Fiber Optic Stripper, 250µm & 900um Fiber Holders, Cleaning Tools

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# **INNO** FUSION SPLICERS

# **IFS-10** Smart ARC Fusion Splicer

INNO Fiber Master IFS-10 Core-Alignment Fusion Splicer with the New DACAS (Digital Analysis Core Alignment System) is one of the most dependable splicers on the market. The Fiber Master splicer features a rubberized design for field use in harsh weather conditions. The IFS-10 has a friendly, intuitive GUI (Graphical User Interface) with a 5 inch color LCD screen that is easy to see and is adjustable for front and rear splicer orientation. The impressive, large battery capacity at full charge allows for up to 350 splices. The IFS-10 splicer is truly the most reliable and user friendly Core Alignment splicer in the world.



#### **SPECIFICATIONS**

Alignment Method	Core Alignment DACAS (Digital Analysis Core Alignment System)
Applicable Fibers	SM (ITU-TU.652), MM (ITU-TU.651), DS (ITU-T G.653), NZDS (ITU-T G.655), G657A, G657B
Average Loss	SM (0.02dB)   MM (0.01dB)   DS (0.04dB)   NZDS (0.04dB)
Return loss	>> 60 dB
Electrode Lifespan	> 2,500 arcs
Cladding Diameter	80-150um
Coating Diameter	100-1000um
Typical Splice Time	9s average SM   7s SM Quick Mode
Cleaved Length	Coating diameter < 0.25mm = 8-16mm, Coating diameter > 0.25mm = 16mm minimum
Heating Programs	10 Preset heating modes
Heating Time	FP-03 typical heating time 35s
Protection Sleeve	10mm, 20mm, 30mm, 40mm, 50mm, 60mm
Data Output	USB master device and COM
Splice Programs	100 user mode programs
Splice Memory	Up to 2000 records
Battery	Typical full cycle 350 Splice and Heat
Power Supply	AC 100-240V input or DC 18V
Monitor	Color 5" LCD monitor, with tempered glass
Cameras	2 CCD camera system
Magnification	XY style: 150 power, X/Y: 300 power
Fiber Display	X/Y or XY, single X.Y
Weight	2.2KG (without battery)
Size	155 x 130 x 143mm (excluding rubber bumper)
Wind Protection	max wind speed 15m/s
Operating Environment	Elevation 0-5000 meters, -10~50°C, ~95% relative humidity
Storage Condition	Temperature -40 to $80^\circ\text{C}$ , ~95% relative humidity
Warranty	3 year warranty

#### **Features**

- 2.2 kg weight (without battery)
- Splicing method : DACAS (Digital Analysis Core Alignment System)
- Harsh weather conditions adaptability
- Friendly smart GUI
- Large battery capacity: 350 Splice and Heat Cycles
- Quick optimize menu
- High precision splicing
- USB master port, easy to upgrade software
- Operate in bi-directional view



#### **ORDERING INFORMATION**

IFS-10	IFS-10 Splicer	\$9,900.00
Charger, Power	es: IFS-10 Splicer, High Precision Cleaver, Cable, Extra Electrodes, Carrying Case,	
RS-232 Cable, S	oftware CD	

Ask about our extended warranty and loaner programs for splicers!

SPLICING EQUIPMENT INN

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# INNO FUSION SPLICERS

INNO

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The IFS-15H core-alignment fusion splicer with the new DACAS (Digital Analysis Core Alignment System) is one of the most dependable splicers on the market. The IFS-15H has a user friendly, intuitive GUI (Graphical User Interface) with a 4.3 inch high resolution color LCD screen that is easy to see and use. With the compact size of the fusion splicer (155mm x 130mm x 137mm) and the portable carrying case, the IFS-15H FTTH Master brings much more convenience to customers who work in the FTTx field. Besides its compact size, the most significant innovation is the compatibility. The IFS-15H is compatible with most widely used fibers and cables, including splice-on connectors. It combines the functions of both splicing and heating for those cables which are popular in FTTx: 250µm fiber, 900µm fiber, flat cable, fiber jumper and splice-on connector.

#### **SPECIFICATIONS**

Applicable Fibers	SM(ITU-TG.652)/MM(ITU-TG.651)/DS(ITU-TG.653)/ NZDS(ITU-TG.655)/ITU-TG.657A/ITU-TG.657B
Compatible Fiber / Cable	0.25mm/0.9mm/2.0mm/2.4mm/3.0mm/ Flat cable
Fiber Count	Single Core
Fiber Holder	Detachable (Standard: FH-40, Optional: FH-10, FH-ST, FH-SC)
Fiber Diameter	Cladding:80-150µm/Coating:100-1000µm
Fiber Cleave Length	Diameter 250µm-1000µm: cleave length 8-16mm
Splice Mode	Max/Preset 64/24
Typical Splice Loss	SM:0.02dB/MM:0.01dB/DS:0.04dB/NZDS:0.04dB/ G.657:0.02dB (ITU-T Standard)
Return Loss	>>60dB
Splicing Time	SM Quick Mode: 7seconds
Attenuation Splicing	0.1dB-20dB (0.1dB step)
Heat Oven / Heating Time	Heat Mode: 32/Heating Time (Typical): 35 seconds
Applicable Protection Sleeve Length	10mm, 20mm, 30mm, 40mm, 50mm, 60mm
Results Storage	The last 2000 results
Mechanical Proof Test	1.96~2.25N [Based on the fiber count]
Operating Condition	Operating Altitude: 0-5000 meter above sea level, 95% relative humidity, -10~50°C, Max Wind 15 m/s
Storage Condition	0~95% relative humidity, -40~80°C, Battery: -20~ 30 °C
Fiber View & Magnification	X/Y 300X, X/Y 180X
Display	2 Cameras and 4.3 inch color LCD monitor (with high resolution shock-proof protected surface)
Power	DC 18V Power Supply
Weight	1.82kg without battery
Size	155 x 130 x 137 (LxWxH)
No of Splice / Heating with Battery	Typical 160 times (Splice + Heat) / Splice + Heat= 26.7mA / Time Battery:4200mAh
Electrode	>2500 Times Splicing
Terminal	USB 2.0/RS232 (for storage and upgrading)
Warranty	3 year warranty

#### **Features**

- 1.82 kg weight (without battery)
- Splicing method : DACAS (Digital Analysis Core Alignment System)
- Friendly, smart GUI
- Quick optimize menu
- High precision splicing
- USB master port, easy to upgrade software
- Universal holder
- Detachable SOC holder
- Detachable SOC heating oven
- FTTH fitted package



#### **ORDERING INFORMATION**

IFS-15H	IFS-15H Splicer	\$8,800.00

**The Kit includes:** IFS-15H Splicer, High Precision Cleaver, Indoor Cable Stripper, Stripper, Protector, Working Head Lamp, Battery Pack, Cooling Tray, Power Cable, AC Adapter, Electrode, Software CD, HCK Working Table, HCK Carrying Case, Cigarette Lighter Cable

Ask about our extended warranty and loaner programs for splicers!

#### 877-529-9114 sales@fiberoptic.com

# FITEL FUSION SPLICERS

# S123C ver.2 **Fixed V-Groove Fusion Splicer**

The S123C Hand-Held Clad-Alignment Fusion Splicer has been enhanced and updated to version 2. The battery is automatically charged internally when connected to AC mains power even during operation. The new illumination lamp lights up a wide area around the V-grooves and helps operation in low light environment. The redesigned and strengthened heater simplifies the protection sleeve loading process. Splicing Drop/Indoor cable is possible with newly designed kits.

With its low profile design and light weight body the S123C offers single fiber splicing with outstanding mobility and extreme ease-of-use. In addition, the rugged body is designed to endure harsh operating conditions by improving shock/impact resistance with rubber pads embedded on 4 corners of the splicer body. It achieves water resistance compliant IPX2 and dust resistance compliant IP5X. The fast 13 seconds splice time and 25 seconds protection sleeve shrink time offers a highly efficient work environment. Large battery capacity makes it possible to perform 70 cycles of splicing and heating, while it offers SOC solution as well. By combining portability, ease of use, improved speed and durability, the S123C becomes an excellent option for use in the conventional telecommunications industry.

#### SPECIFICATIONS

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Applicable Fibers	SM (ITU-T G.652), MM (ITU-T G.651), DSF (ITU-T G.653), NZD (ITU-T G655), BIF/UBIF (Bend Insensitive Fiber ITU-T G.657)
Cladding Diameter	125 µm
Coating Diameter	250 to 900 µm for single fiber
Fibers Cleave Length	5 to 10 mm or 16 mm
Average Splice Loss	SM: 0.05 dB, MM: 0.02 dB, DSF 0.08 dB, NZD 0.08 dB
Splice Time	13 seconds
Heat Time	25 seconds (S922: 40 mm sleeve, S921: 60 mm sleeve) (Pre-heat mode) 31 seconds (S922: 40 mm sleeve, S921: 60 mm sleeve) (Regular mode)
Splice Programs	Max. 150
Heat Programs	Max. 18
Applicable Sleeves	20/40/60 mm
Tension Test	1.96 N
Return Loss of Splice	60 dB or more
Magnification	58X
Splice Memory	Max. 1500
Image Capture Capacity	Last 100 images to be automatically captured + Up to 24 images to be stored permanently
Size (WxDxH)	127 × 199 × 81 mm (not including shock absorber) 159 × 231 × 104 mm (including shock absorber)
Weight	1.4 kg (without battery), 1.6 kg (with battery)
Monitor	3.5" color LCD monitor
Battery Capacity	Typical 70 splice/heat cycles with S943B battery
Wind Protection	Max. wind velocity of 15 m/s.
Operating Temp	-10 to 50°C (without excessive humidity)
Storage Temp	-40 to 60°C (without excessive humidity)
Humidity	0 to 95% RH (non-condensing)
Power Source	AC input 100 to 240 V (50/60 Hz), DC Input 11 to 17 V without any change of hardware



#### **Features**

- Internal battery charging
- Illumination lamp lights up a wide area around V-grooves
- Splicer is compatible with the Seikoh Giken and Diamond Splice-on-connector (SOC)
- Available for All METRO/LAN/FTTx fibers including ultra bend-
- insensitive fibers (e.g. EZ-Bend)
- Easy maintenance Tool-less electrode replacement/mirror free alignment system
- Easily exchanged fiber holder systems (tight holder/fiber holder/ SOC holder)
- Splicing Drop/Indoor cable is available
- PC interface software to allow user manage splicing programs and results
- Improved GUI to further enhance ease-of-use
- RoHS compliant

#### **ORDERING INFORMATION**

- S123C
  - S123C ver.2 Fusion Splicer Kit **Call For Price**

Kit includes: S123C Main Body, Soft Carrying Case, Hard Carrying Case, Battery Pack, Spare Electrodes, AC Adaptor for S123C and S958C, AC Cable Cord, Electrode Sharpener, Cleaning Brush, Tool Case, Manual

#### **OPTIONAL ACCESSORIES** AND SUPPLIES

S943	Extra Li-lon Battery	\$150.00
S957B	AC Adapter	\$50.00
S966	Replacement Electrodes (pair)	\$125.00
D5111	Electrode Cleaning Disk	\$20.00
FPF-01	Fiber Preparation Fluid	\$13.00
FW-01	Fiber Wipes	\$7.00

#### **OPTIONAL ACCESSORIES** AND SUPPLIES

S218R	Thermal Stripper	\$1,325.00
JIC-375	3 Hole Strippers	\$24.00
S211B	Fiber Stripper	\$35.00
S709S-250	250µm Fiber Holders (pair)	\$450.00
S709S-900	900µm Fiber Holders (pair)	\$500.00

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SPLICING EQUIPMENT

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# FITEL FUSION SPLICERS

# Fiber Optic.com

# **S153A ver.2** Fixed V-Groove Fusion Splicer

The S153A Active 3 Axis Cladding Alignment Fusion Splicer has been enhanced and updated to version 2. The battery is automatically charged internally when connected to AC mains power even during operation. The new illumination lamp lights up a wide area around the V-grooves and helps operation in low light environment. The redesigned and strengthened heater simplifies the protection sleeve loading process.

S153A is the first choice for low cost field splicing equipment. The Active V-Groove technology used on the S153A delivers low loss splices with ease while eliminating common Fixed V-Groove splicing errors. Using the rugged metal body, the S153A is designed to endure harsh operating conditions by improving shock/impact resistance with rubber pads embedded on 4 corners of the splicer body. It also achieves water resistance compliant to IPX2 and dust resistance compliant to IPSX.



#### **SPECIFICATIONS**

SM (ITU-T G.652), MM (ITU-T G.651), DSF (ITU-T G.653), NZD (ITU-T G.655), BIF/UBIF (Bend insensitive fiber, ITU-T G.657)
80~150 μm
100~1,000 μm
5~16 mm
SM: 0.04 dB, MM: 0.02 dB, DSF: 0.06 dB, NZD: 0.06 dB
9 seconds (semi-auto mode) 11 seconds (regular mode)
25 seconds (S922: 40 mm Sleeve, S921: 60 mm Sleeve) (Pre-heat mode) 31 seconds (S922: 40 mm Sleeve, S921: 60 mm Sleeve) (regular mode)
Max 150
Max. 18
20/40/60 mm
1.96 N
60 dB or greater
76X, 235X
Max. 2,000
Last 100 images to be automatically captured + Up to 24 images to be stored permanently
127 × 199 × 105 mm (not including shock absorber) 159 × 231 × 130 mm (including shock absorber)
1.7 kg (without battery) 2.1 kg (with two batteries)
3.5" color LCD monitor
Typical 80 splice/heat cycles with single battery Typical 200 splice/heat cycles with 2 batteries
5,000 mh
Max. wind velocity of 15 m/s.
-10 to +50°C (0 to 95% Relative Humidity [Non-Condensing])
-40 to +60°C (0 to 95% Relative Humidity [Non-Condensing])
0 to +95% RH (non-condensing)
AC Input 100 to 240 V (50/60 Hz), DC Input 11 to 17 V without any change of hardware

#### **Features**

- Internal battery charging
- Illumination lamp lights up a wide area around V-grooves
- User friendly LCD display offers 4 different X/Y image layouts
- Simplified splice result indicator red / green icon
- Active V-groove, More Reliable than conventional Fixed V-groove machines
- Splice programs available for All METRO/LAN/FTTx fibers including ultra bend-insensitive fibers (e.g. EZ-Bend TM )
- Splicer is compatible with the Seikoh Giken and Diamond Splice- onconnector (SOC)
- Easy maintenance electrode replacement/mirror free alignment system
- Simplified program fusion and heater programming
- Easily exchanged fiber holder systems
- Improved GUI enhancing ease-of-use
- RoHS compliant

#### **ORDERING INFORMATION**

S153A

S153A ver.2 Fusion Splicer Kit Call For Price

Kit includes: S153A Main Body, Hard Carrying Case, Battery Pack, Spare Electrodes, AC Adaptor for S153A and S958C, AC Cable Cord, Electrode Sharpener, Cleaning Brush, Tool case

877-529-9114 sales@fiberoptic.com

# FITEL FUSION SPLICERS

# **S178A ver.2** Core-Alignment Fusion Splicer

The S178A Hand-Held Core-Alignment Fusion Splicer has been enhanced and updated to version 2. The battery is automatically charged internally when connected to AC mains power even during operation. The new illumination lamp lights up a wide area around the V-grooves and helps operation in low light environment. The redesigned and strengthened heater simplifies the protection sleeve loading process.

Although the S178A is significantly smaller and lighter in weight than previous models, its canopy design, durable metal body frame and rubber protection corners provide robust protection. This enables use in demanding environments without compromising splicing performance. Along with its rugged durability, the splicer also offers convenience. An internal battery system allows up to 200 splicing cycles (splicing/heating) and an innovative, mirror-free alignment system reduces maintenance work.

#### **SPECIFICATIONS**

Applicable Fibers	SM, MM, DSF, NZD, EDF, BIF/UBIF (Bend insensitive fiber)
Cladding Diameter	80~150 μm
Coating Diameter	100~1,000 μm
Fibers Cleave Length	5~16 mm
Average Splice Loss	SM: 0.02 dB, MM: 0.01 dB, DSF: 0.04 dB, NZD: 0.04 dB
Splice Time	7 seconds (semi-auto mode) 9 seconds (regular mode)
Heat Time	25 seconds (S922: 40 mm Sleeve, S921: 60 mm Sleeve) (Pre-heat mode) 31 seconds (S922: 40 mm Sleeve, S921: 60 mm Sleeve) (regular mode)
Splice Programs	Max. 150
Automatic Splicing Selection	SM: SM, DSF, NZD, BIF/UBIF, MM: MM
Heat Programs	Max. 18
Automatic Heating	Available
Applicable Sleeves	20/40/60 mm
Fiber Holding	Tight holder (Loose tube applicable) or Removal Fiber Holder System
Tension Test	1.96 N
Return Loss of Splice	60 dB or greater
Attenuation Splice Function	Intentional high splice loss of 0.1dB to 10dB (0.1dB step) can be made for an inline fixed attenuator
Image Magnification	304X, 608X
Splice Memory	Max. 2,000
Image capture Capacity	Last 100 images to be automatically captured + Up to 24 images to be stored permanently
Dimension (WxDxH)	$127 \times 199 \times 105$ mm (not including shock absorber) $159 \times 231 \times 130$ mm (including shock absorber)
Weight	1.9 kg (without battery) 2.3 kg (with two batteries)
Monitor	3.5" Color LCD monitor
Data Output	USB ver.2.0 mini
Battery Capacity	Typical 80 splice/heat cycles with single battery Typical 200 splice/heat cycles with 2 batteries
Altitude	5,000 mh
Wind Protection	Max. wind velocity of 15 m/s.
Operating Temp	-10 to +50°C (0 to 95% Relative Humidity [Non-Condensing])
Storage Temp	-40 to +60°C (0 to 95% Relative Humidity [Non-Condensing])
Humidity	0 to +95% RH (non-condensing)
Power Source	AC Input 100 to 240 V (50/60 Hz), DC Input 11 to 17 V $$



#### **Features**

- Internal battery charging
- Illumination lamp lights up a wide area around V-grooves
- User friendly LCD display offers 4 different X/Y image layouts
- Simplified splice result indicator red / green icon
- Fast splice (7 sec) at super low loss and Fast Heating (25 sec)
- Splice programs available for All METRO/LAN/FTTx fibers including ultra bend-insensitive fibers (e.g. EZ-Bend™)
- Splicer is compatible with the Seikoh Giken and Diamond Splice-on-connector (SOC)
- Easy maintenance electrode replacement /mirror free alignment system
- Easy Software upgrade via the Internet
- PC interface software to allow user manage splicing recipes and splicing results
- RoHS compliant

#### **ORDERING INFORMATION**

S178A	S178A Hand-Held Core-Alignment	<b>Call For Price</b>
	Fusion Splicer	

**The Package includes:** S178A Main Body, Hard Carrying Case, Battery Pack, Spare Electrodes, AC Adaptor for S178A and S958C, AC Cable Cord, Electrode Sharpener, Cleaning Brush, Tool case, Manual

#### **OPTIONAL ACCESSORIES** AND SUPPLIES

Soft Carrying Case	\$136.00
Miller Tri-hole Stripper	\$75.22
Technician's Cleaning Kit	\$97.00
Working Belt	\$450.00
USB Cable	\$15.00
Car Cigarette Cable	\$150.00
ions	
160 µm fiber holders	\$750.00
250 µm fiber holders	\$450.00
500 µm fiber holders	\$450.00
900 µm fiber holders	\$450.00
	Miller Tri-hole Stripper Technician's Cleaning Kit Working Belt USB Cable Car Cigarette Cable ions 160 μm fiber holders 250 μm fiber holders 500 μm fiber holders

Ask about our extended warranty and loaner programs for splicers!

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# SPLICE SLEEVES & MECHANICAL SPLICES

#### FOM Standard Sleeve - (3.0 MM After Shrink)

This sleeve design is the industry's highest quality, most reliable and most economical. Standard lengths include 60mm and 40mm. Sleeves come standard with a clear outer tube for viewing the color of the fiber itself, and a steel wire for support and stability.

FOM-1002	60mm Clear Splice Sleeves	\$0.55
FOM-100240	40mm Clear Splice Sleeves	\$0.55
FOM-1002R	60mm Red Splice Sleeves	\$0.55

#### **FOM** Ribbon Sleeves

FOM offers two ribbon sleeve style: Dual Strength Member and Single Strength Member. The Dual Strength Member design eliminates any undue stress on the ribbon, creating a perfectly flat exit for the ribbon. Also available with a ceramic strength member.

FOM-100240R	Single Strength, 40mm Clear	\$0.65
FOM-10112DP	Dual Strength, 40mm Clear	\$1.20

#### Micro Sleeve & Mini Sleeve

Designed to fit in smaller splice storage areas, the Micro protection sleeves will accommodate 250µm coated fibers and have an after-shrink diameter of 1.5mm. The Mini Sleeves will accommodate 900µm or 250µm coated fibers, and have an after-shrink diameter of 2.0mm.

MCRO140CFD-50	40mm Clear - Micro Splice Sleeves (50pk)	\$32.50
MCRO125CFD-50	25mm Clear - Micro Splice Sleeves (50pk)	\$27.50
MINI140CDS-50	40mm Clear - Mini Splice Sleeves (50pk)	\$32.50
MINI140CDS-50	25mm Clear - Mini Splice Sleeves (50pk)	\$32.50

#### CamSplice Mechanical Splice

This easy to install one size fits all mechanical splice features "Cam" locking mechanism, which requires no adhesive. The CamSplice incorporates a unique alignment method that self-centers fibers, providing accurate alignment. Splice loses of less than 0.05dB are consistently achievable. Fits 250/250µm, and 250/900µm or 900/900µm applications (one size fits all).

95-000-04	CamSplice™ Mechanical Splice (Pack of 6)	\$146.67
2104040-01	CamSplice™ Mechanical Splice Assembly Fixture	\$246.88

#### **3M™** Fibrlok Mechanical Splice

The Universal Fibrlok Splice has an insertion loss <.2dB with a fiber retention of >.7.75 lbs. Known for low reflection characteristics of -35dB. Using V groove technology, it requires no epoxy. Uses Fibrlok assembly tool 2501. Splice completed in 30 seconds after preparing fiber ends. Thermal stability of  $-40^{\circ}$ C TO 80°C.

2529 Universal Fibrlok Mechanical Splice		\$10.21
2501	Fibrlok Mechanical Splice Assembly Tool	\$71.70
2612	Multi-Fiber Optical Splice (12 Fiber Ribbon)	\$48.00

#### ULTRAsplice® Mechanical Splice

The ULTRAsplice® is a high performance, easy to install tunable and reusable mechanical splice. One splice accepts any combination of buffer sizes from 250µm to 900µm. Average loss is less than .2dB with fiber retention of over 2 lbs.

US-126	Singlemode Universal Ultrasplice® Mechanical Splice	\$7.95
US-128	Multimode Universal Ultrasplice® Mechanical Splice	\$7.95
FSHLDR	Ultrasplice® Mechanical Splice Plastic Sleeve Holder for Splice Trays	\$1.50
USMOD	Ultrasplice® Mechanical Splice Installation Holder	\$0.90







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# **AXS-110** Handheld OTDR

#### Easy Location and Characterization of Events

EXFO's AXS-110 All-Fiber OTDR helps you boost test productivity for insideplant applications. Its exceptional 0.8 m event dead zone enables you to easily locate and characterize all events between the transmitter and the central office's fiber, access and FTTH network applications, where events are usually closely spaced.

#### Multimode and Singlemode Flexibility

The AXS-110 combines singlemode and multimode functionalities, ideal for premises, private and enterprise network testing. Test multimode fiber within premises, or singlemode fiber between premises—all with a single OTDR unit—and maximize your return on investment.

#### **End-to-End PON Characterization**

The AXS-110 lets you test through high-port-count splitters-even 1 x 64 splitters—perfect for passive optical network (PON) testing.

#### SPECIFICATIONS

Wavelength (nm)	850/1300/1310/1550
Event Dead Zone (m)	0.8
Attenuation Dead Zone (mm)	3.5/4.5/4/4.5
Dynamic Range (dB)	24/25/37/35
Distance Range (km)	MM: 0.1 to 40 / SM: 0.65 to 260
Data Points	Up to 64,000
Storage Capacity	500 traces
Ports	USB, RJ-45
Trace File Format	Bellcore (.sor, Telcordia SR-4731)
Operating Temperature	–18 °C to 50 °C (14 °F to 122 °F)
Operating Temperature	–40 °C to 70 °C (–40 °F to 158 °F)
Relative Humidity	0 % to 95 % non-condensing
Size (H x W x D)	250 mm x 125 mm x 75 mm (9 7/8 in x 4 15/16 in x 3 in)
Weight	1 kg (2.2 lb)
Power Meter	
Calibrated wavelengths (nm)	850, 1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510,

	1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1625
Power range (dBm)	26 to –64 (GeX 2 mm)
Uncertainty	$\pm$ 5 % $\pm$ 0.4 nW (up to 5 dBm)
Display resolution (dB)	0.01 (–54 dBm to P max), 0.1 (–54 dBm to –64 dBm), 1 (–64 dBm to min)
Tone detection (Hz)	270/1000/2000

Tone detection (Hz)

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#### Features

- · FasTrace function: one-touch testing for top user-friendliness
- 8-hour power autonomy
- USB port (memory-stick compatible) for easy data transfer
- Large internal memory (up to 500 results)
- Transflective color display for viewing clear results under bright sunlight
- Superior automated analysis for a better, easier and faster diagnosis
- · Automatic pass/fail analysis and macrobend locating

#### AXS-110 All-Fiber OTDR

Combining singlemode and multimode capabilities for enterprise, campus and access networks, this model offers the 850, 1300, 1310 and 1550 nm wavelengths, with respective dynamic ranges of 24, 25, 32 and 30 dB.

#### **AXS-110 Singlemode OTDR**

Ideal for FTTx/access and CATV testing, this model is optimized for testing through PON-based splitters; it offers the 1310, 1490, 1550 and 1625 nm wavelengths, with respective dynamic ranges of 37, 33, 35 and 37 dB.

#### AXS-110 Multimode OTDR

Optimized for enterprise testing on both 50 and 62.5 µm multimode fiber, this model offers the 850 and 1300 nm wavelengths, with respective dynamic ranges of 24 and 25 dB.

#### CONFIGURATIONS

PART #		WAVELENGTHS		DYNAMIC RANGE EVENT DEADZONE		ATTENUATION DEADZONE	PRICE		
	850	1300	1310	1550	1625	D INAMIC NAME	EVENT DEADZONE	ATTENDATION DEADZONE	FRICE
AXS-110-23B			•	•		37/35 dB	0.8 m	4/4.5 m	\$5,995.00
AXS-110-12CD	•	•				24/25 dB	0.8 m	3.5/4.5 m	\$6,895.00
AXS-110-12CD23B	•	•	•	•		24/25/32/30 dB	0.8 m	3.5/4.5/4/4.5 m	\$9,795.00

OTDRS

**TEST EOUIPMENT** 

# FTB-1 Handheld Modular Test Platform

The result of EXFO's time-proven expertise in portable platform design, the FTB-1 Platform is an open testing solution for network infrastructure construction and troubleshooting. The FTB-1's built-in intelligence empowers frontline technicians to take field-testing efficiency to the next level. Thanks to a highly "connected" set of tools—including Update Manager and compatibility with the EXFO Connect environment, which provides end-to-end operational visibility and centralized reporting capabilities throughout the entire test instrument pool—the FTB-1 delivers maximum return on your investment.

#### Adapted for Dedicated Applications. Dedicated to Helping You Adapt.

Thanks to its small format, ultra-powerful processing and highly intuitive interface, the FTB-1 is optimized to allow field technicians to carry out dedicated FTTH and Ethernet test applications simply and efficiently.

#### Access Network Testing Using the FTB-720 LAN/WAN Access OTDR

On the strength of best-in-class specifications and four test wavelengths, the FTB-720 LAN/WAN Access OTDR is optimized for fiber-optic contractors and private network operators, enabling them to fully test and qualify any type of fiber network.

#### FTTH Testing Using the FTB-730 PON FTTx/MDU OTDR

With a dynamic range of up to 39 dB and enabling power meter and visual fault locator functionalities, the FTB-730 PON FTTx/MDU OTDR module allows fiber installers to seamlessly characterize splitters in PON FTTx and multiple dwelling unit (MDU) applications.

#### Multiservice Testing Using the FTB-880 NetBlazer Multiservice Tester

The FTB-880 NetBlazer allows field technicians to easily turn up, validate and troubleshoot DSn/PDH, SONET/SDH and Ethernet services up to 10 Gbit/s in converged optical networks.

#### Ethernet Testing Up to 10G Using FTB-860 NetBlazer Ethernet Tester

The FTB-860 NetBlazer Ethernet Tester enables field technicians to quickly and easily turn up, validate and troubleshoot Ethernet services, with full EtherSAM capabilities, from 10 Mbit/s to 10 Gbit/s.

#### Software Test Tools

This series of platform-based software testing tools enhance the value of the FTB-1 Platform, providing additional testing capabilities without the need for additional modules or units.

#### **SPECIFICATIONS**

Display	Touchscreen, color, 800 x 480 TFT, 178 mm (7 in)
Display	
Interfaces	Two USB 2.0 ports RJ-45 LAN 10/100/1000 Mbit/s Fiber inspection probe connector port (video) Built-in Bluetooth and Wi-Fi (hardware option)
Storage	8 GB internal memory (flash) 16 GB internal memory (flash), optional
Batteries	Rechargeable lithium-ion batteries 8 hours of operation as per Telcordia* (Bellcore) TR-NWT-001138
Power supply	AC/DC adapter, input 100-240 VAC, 50-60 Hz, 1.6 A max, output 24 VDC, 3.75 A
Computer	Intel ATOM processor Windows Embedded Standard operating system
Size (H x W x D)	190 mm x 252 mm x 66 mm (7 1/2 in x 9 15/16 in x 2 5/8 in)
Weight (w/battery)	1.5 kg (3.3 lb)
Temperature	Operating: 0 °C to 50 °C (32 °F to 122 °F) Storage: -40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity	0 % to 95 % non-condensing



#### Features

- USB, mobile, Wi-Fi and Bluetooth connectivity capabilities
  Supports third-party applications and all the tools that enable
- technicians to complete their work right in the field
  Lets you take advantage of the EXFO Connect environment to manage field testing/reporting operations as well as your
- to manage field testing/reporting operations as well as your platform pool
- Intel ATOM processor with Windows Embedded Standard operating system, for optimized productivity and versatility
- Latest battery technology for unmatched operation autonomy
- One GigE port and two USB 2.0 ports
- Windows Remote Assistance and Remote Control
- EXFO fiber inspection probe connector interface
- Display: TFT outdoor-enhanced LCD, 7-inch touchscreen
- Telcordia-compliant

#### **ORDERING INFORMATION 720**

TK1-720-023B-04	1310/1550/1625 PON	\$11,535.00
TK1-720-023B-XX	1310/1550nm	\$6,405.00
TK1-720-12CD-XX	850/1300nm	\$7,985.00
TK1-720-12CD23B	850/1300/1310/1550	\$10,455.00
TK1-720i-023B-X	1310/1550nm iOLM	\$6,405.00
TK1-720i-12CD23	850/1300/1310/1550	\$10,455.00
TK1-QUAD-PM-VFL	Custom QUAD OTDR Pkg.	\$11,775.00

#### **ORDERING INFORMATION 730**

TK1-730-023B-04	1310/1550/1625 iOLM	\$13,155.00
TK1-730-023B-XX	1310/1550nm iOLM	\$8,385.00
TK1-730-034B-XX	1550/1625nm iOLM	\$10,905.00
TK1-730-Oi-SVP	Custom FTB-1 OTDR/iOLM Pk	\$14,665.00
TK1-730i-236B	1310/1490/1550 iOLM	\$12,355.00

Single mode and Quad only. Other configurations available

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# EXFO OTDRS

# **FTB-200** Compact Modular Test Platform

Testing today's networks requires a supertech. EXFO understands that technicians need to span various mediums, layers and technologies. With this reality in mind, EXFO designed the FTB-200 Compact Platform for multilayer, multimedium testing.

The FTB-200 was designed for supertechs in the field that perform tests on optical and copper for metro/access and FTTx networks. This task requires a compact platform optimized for time-efficient automated tests and in-depth troubleshooting and analysis. The FTB-200 is ideal for testing.

#### **Bidirectional trace analysis\***

Improve the accuracy of your loss measurements with the bidirectional averaging feature, which uses OTDR acquisitions from both ends of a fiber span to average loss results for each event.

#### Efficient multifiber testing with Template Trace

Reduce testing time when commissioning a large number of fibers by using the Template Trace mode. This mode dynamically compares new OTDR results with a trace you assign as a reference. Reference trace documentation is automatically pasted onto new acquisitions to save you time.

#### **Professional report generation**

User-configurable test reports and batch printing let you generate complete, professional OTDR reports quickly and efficiently.

#### SPECIFICATIONS

Display	Touchscreen, color, 640 x 480 TFT 163 mm (6 7/16 in)		
Storage	Internal 80 MB (Flash) USB sticks 1 GB and 2 GB (optional) Compact Flash cards (optional)		
Battery type	Rechargeable Li-Ion 8 h of operation as per Bellcore TR-NWT-001138		
Size (H x W x D)	322 mm x 197 mm x 109 mm		
Weight	5.4 lb		
Operating temperature	23 °F to 122 °F		
Storage temperature	-40 °F to 158 °F		
Vibration	< 1.5 g at 10 Hz to 500 Hz (on three main axes)		
Mechanical shock	< 760 mm on six sides and eight main edges (ac- cording to GR-196-CORE)		
POWER METER SPECIFICATIONS			
Calb. Wavelength (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650		

Calb. Wavelength (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Power range (dBm)	10 to —86 (InGaAs) 26 to —64 (GeX)
Uncertainty (%)	$\pm 5 \% \pm 3 \text{ pW} (InGaAs)$ $\pm 5 \% \pm 0.4 \text{ nW} (GeX)$
Display resolution (dB)	InGaAs 0.01 = max to $-76 \text{ dBm}$ 0.1 = $-76 \text{ dBm}$ to $-86 \text{ dBm}$ 1 = $-86 \text{ dBm}$ to min GeX 0.01 = max to $-54 \text{ dBm}$ 0.1 = $-54 \text{ dBm}$ to $-64 \text{ dBm}$ 1 = $-64 \text{ dBm}$ to min
Automatic offset nulling range	Max power to —63 dBm for InGaAs Max power to —40 dBm for GeX
Tone detection (Hz)	270/1000/2000



#### **Features**

- Modules that test up to four wavelengths
- FTTx-optimized modules that combine multimode and singlemode network functions
- Future-proof compatible with future module designs
- Backward compatible with the FTB-7000B/C generation OTDRs and FTB-3930 OLTS
- Rugged design meeting GR-196-CORE requirements
- Extended battery life of up to 8 hours for OTDR modules

BUILT-IN POWER METER SPECIFICATIONS			
Calb. Wavelength (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650		
Power range (dBm)	10 to —86 (InGaAs) 26 to —64 (GeX)		
Uncertainty (%)	±5 % ± 3 pW (InGaAs) ±5 % ± 0.4 nW (GeX)		
Display resolution (dB)	InGaAs 0.01 = max to $-76 \text{ dBm}$ 0.1 = $-76 \text{ dBm}$ to $-86 \text{ dBm}$ 1 = $-86 \text{ dBm}$ to min GeX 0.01 = max to $-54 \text{ dBm}$ 0.1 = $-54 \text{ dBm}$ to $-64 \text{ dBm}$ 1 = $-64 \text{ dBm}$ to min		
Automatic offset nulling range	Max power to —63 dBm for InGaAs Max power to —40 dBm for GeX		
Tone detection (Hz)	270/1000/2000		

#### **ORDERING INFORMATION**

TK-200-S1-D3-EI	Modular Link Characterizer Test Kit (SM)	\$7,390.00
TK-200-S1-D16	FTB-200 with (MM) 850/1300 (27/26db)	\$9,240.00
TK-200-S1-D15	FTB-200 with MM/SM Quad Module	\$11,710.00

Single mode and Quad only. Other configurations available

#### **\*PLEASE CALL FOR CONFIGURATIONS\***

OTDRS

TEST EOUIPMENT

# **EXFO** OTDRS

# **FTB-500** Modular Test Platform

The result of over 10 years of proven leadership in multimodular test platforms, the FTB-500 delivers a whole new spectrum of network testing possibilities, a whole new testing paradigm: more advanced applications, faster setups, test cycles and reporting, wireless communication and reporting, and universal compatibility with all EXFO FTB modules, past, present and future.

#### **Features**

- Full fiber characterization: industry-renowned OTDRs combined with the most advanced dispersion analyzers
- Industry-exclusive: distributed PMD analysis
- 10G, 40G and 100G-ready
- Most compact and powerful Ethernet, SONET/SDH, OTN and Fiber Channel analyzers
- Four-slot or eight-slot configurations
- Universal wireless connectivity
- Full backward compatibility with all FTB modules

#### **SPECIFICATIONS**

Display	Touchscreen, color TFT, 800 x 600 TFT, 307 mm (12.1 in)		
Storage	Internal 80 GB hard drive minimum with G-shock protection Flash USB drive (1 GB, 2 GB and 8 GB optional) ExpressCard memory card (16 GB and up, optional) External USB read/write DVD drive (optional)		
Interfaces	Ethernet port Fiber probe port ExpressCard port 34 mm format Serial RS-232 port Monitor port Four USB 2.0 ports Standard PC Mic in and Speaker out ports (3.5 mm)		
Battery type	Eight-slot configuration: three rechargeable Li-ion, smart batteries (total of 207 W•h) Four-slot configuration: two rechargeable Li-ion, smart batteries (total of 138 W•h)		
Power supply	100–240 VAC, 50/60 Hz		
Weight	Eight-slot configuration: 10.9 kg (24 lb) Four-slot configuration: 8.5 kg (18.7 lb)		
Size (H x W x D)	Eight-slot configuration: 366 mm x 296 mm x 216 mm (11 11/16 in x 14 7/16 in x 8 1/2 in) Four-slot configuration: 366 mm x 296 mm x 146 mm (11 11/16 in x 14 7/16 in x 5 3/4 in)		
Operating temperature	32 °F to 122 °F		
Storage temperature	-40 °F to 158°F		
BUILT-IN POWER METER	SPECIFICATIONS		
Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650		
Power range (dBm)	10 to —86		
Uncertainty (%)	±5 % ± 3 pW (up to 5 dBm)		
Display resolution (dB)	0.01 = max to76 dBm 0.1 =76 dBm to86 dBm		
Automatic offset nulling range	Max power to —63 dBm		
Tone detection (Hz)	270/1000/2000		







#### FTB-500 8-slot platform

- Distributed PMD analysis
- Full fiber characterization
- 100 Gbit/s testing applications
- ROADM/POTS and 40 Gbit/s testing

#### FTB-500 4-slot platform

- ROADM and PTN turn-up testing
- CWDM turn-up testing
- Multiservice testing
- Gigabit/10 Gigabit Ethernet configurations

#### **\*PLEASE CALL FOR CONFIGURATIONS\***

OTDRS

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# OFL-280 FlexTester Handheld PON OTDR

The AFL/Noyes OFL280 FlexTester offers an unmatched combination of fiber optic test functions, ease-of-use, portability, and value. All OFL280 FlexTester models include an integrated single-mode 1310/1550 nm OTDR with PON-optimized and standard test modes, optical power meter, 1310/1550 nm laser source, and visual fault locator.

#### Features

- Standard OTDR, PON OTDR, live fiber OTDR, and FTTx PON meter all from the same test port
- 1.0 m event dead zone, 3.5 m attenuation dead zone
- 34 dB dynamic range
- Fast Real Time OTDR mode
- Internal storage (>1000 OTDR traces in standard .SOR format)
- High-contrast display is clear and bright in any lighting condition, including direct sunlight
- Transfer test results to a PC via USB
- Short power-on time (< 5 sec)

#### **SPECIFICATIONS**

and AR coating
Battery 10 hours, backlight ON, continuous operation
Power Rechargeable Li-Ion or AC adapter
Weight 1.7 lb
<b>Size</b> 7.5 x 4.4 x 1.9 in
<b>Operating temperature</b> -10 to +50°C, 0 to 95% RH (non-condensing)
Storage temperature         -20 to +60°C, 0 to 95% RH (non-condensing)
POWER METER SPECIFICATIONS
Calibrated wavelengths (nm) 1310, 1490, 1550, 1625, 1650 nm
Measurement range (dBm) +23 to - 50 dBm
Tone Detect Range+3 to -35 dBm
Wavelength ID Range +3 to -35 dBm
<b>Accuracy</b> ± 0.25 dB
Resolution 0.01 dB
Measurement Units dB, dBm or Watts
Laser Source
Emitter Type         Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Fiber Type     Singlemode
Available Wavelengths (nm) 1310, 1490, 1550
Wavelength Tolerance ± 20 nm
Spectral Width (FWHM) 2 nm (maximum)
Internal Modulation 1 kHz, 2 kHz, CW
Wavelength IDCompatible with Noyes Optical Power Meters(one, two, orand Light Sourcesthree wavelengths)
Output Power Stability 0.25 dB
Output Power (nominal) – 3 dBm



#### **Applications**

- PON OTDR FTTx PON construction certification
- Live Fiber OTDR FTTx service turn-up and troubleshooting
- Full Auto OTDR Normal (point-to point) fiber cable construction testing and fault location
- Real Time OTDR Fault location, splice verification, first connector checker
- End Locator Quickly locate breaks or measure fiber length
- Optical Power Meter Measure optical power or fiber loss
- Laser Source Measure end-to-end loss or trace fibers using the tone feature and a Noyes OFI
- Visual Fault Locator Red laser for fiber bend/break location and tracing

#### **SPECIFICATIONS**

Visual Fault Locator			
Emitter Type	Laser		
Safety Class	Class II FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03		
Wavelength	650 nm		
Output Power (nominal)	0.8 mW into single-mode fiber		
PON POWER METER for Single-mode only			
Calibrated Wavelengths	1490, 1550 nm		
Detector Type	Filtered InGaAs		
Isolation	> 40 dB		
Measurement Range	+23 to – 50 dBm		
Accuracy	± 0.5 dB		
Resolution	0.01 dB		
Measurement Units	dBm or watts		

#### **ORDERING INFORMATION**

OFL280-102 FTTx construction OTDR	\$6,195.00
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**Includes:** Carry case, SC adapter, 2.5 mm Universal adapter, 2.5 mm Universal adapter, USB cable, AC power adapter with a country specific power cord, and user guide.

OFL280-103	FTTx installation (live fiber)	\$6,995.00
	OTDR	

**Includes:** Filter to test live FTTx fibers @ 1625 nm, and a PON power meter to measure downstream (1490/1550 nm) power levels on FTTx networks – Carry case, SC adapter, 2.5 mm Universal adapter, 2.5 mm Universal adapter, USB cable, AC power adapter with a country specific power cord, and user guide.

OTDRS NOYES

*TEST EQUIPMENT* 

# M210 Handheld OTDR

The NOYES M210 is the only inspection ready OTDR that combines OTDR, OPM and VFI capability with a proven, easy-to-use and easy-tolearn user interface. The M210 is the latest addition to the M200 family of OTDRs. Like other members of the M200 family, the Noyes M210 OTDR offers the intuitive Touch and Test user interface in a rugged, lightweight, easy-to-hold package ready for field use. The M210 features a more powerful processing engine, a higher resolution display and, for the first time in an OTDR of its size, an integrated Optical Power Meter.

Touch and Test simplifies the M210 user experience, minimizes human errors and reduces training time by providing one-touch access to the Full-Auto, Expert and Real-Time OTDR test modes, OPM measurement mode as well as the Results Management and Job Creation menus. The M210 allows setting Pass/Fail thresholds to industry standard TIA/ISO or user-values and will automatically alert users of failing fibers. Touch and Test enables both experts and novices alike to complete jobs more accurately and in less time.



#### **SPECIFICATIONS**

51 ECH ICATIONS			
	SINGLE-MODE	MULTIMODE	
Emitter Type	Laser	Laser	
Safety Class	Class I FDA 21 CFR 1040.10 and 1040.11; IEC 60825-1:2007-03	Class I FDA 21 CFR 1040.10 and 1040.11; IEC 60825-1:2007-03	
Center Wavelengths	1310/1550 nm	850/1300 nm	
Wavelength Tolerance	±20/±30 nm	±20/±30 nm	
Dynamic Range (SNR = 1)	30 dB	26 dB	
Event Dead Zone	1.5 m	1.5 m	
Attenuation Dead Zone	9 m	9 m	
Pulse Widths	10, 30, 100, 300 ns, 1, 3, 10 µs	10, 30, 100, 300 ns, 1 µs	
Range Settings	250 m to 208 km	250 m to 32 km	
Sampling Points	Up to 16,000	Up to 16,000	
Minimum Data Point Spacing	0.25 m	0.25 m	
Group Index of Refraction	1.4000 to 1.6000	1.4000 to 1.6000	
Distance Uncertainty/Ac- curacy	±(1 + 0.005 % x distance + data point spacing)	±(1 + 0.005 % x distance + data point spacing)	
Linearity	±0.05 dB/dB ±0.05 dB/dB		
Loss Threshold	0.02 dB	0.02 dB	
Loss Resolution	0.01 dB	0.01 dB	
Reflectance Resolution	0.01 dB	0.01 dB	
Reflectance Accuracy	±2 dB	±2 dB	
Real Time Refresh Rate	1 Hz 1 Hz		
Units	1 Hz	1 Hz	
		1 Hz t, kft, mi	
OTDR Modes		t, kft, mi	
OTDR Modes Trace File Format	m, km, f	t, kft, mi ert, Real-Time	
	m, km, f Full Auto, Exp	t, kft, mi ert, Real-Time 96 Version 1.1	
Trace File Format	m, km, f Full Auto, Exp Belicore GR-19	t, kft, mi ert, Real-Time 96 Version 1.1 and USB	

#### **ORDERING INFORMATION**

M210-20U-01	M210 OTDR, SM 1310/1550nm (SC, FC) S.C.	\$5,995.00
M210-22U-01	M210 OTDR, MM 850/1300nm (SC, ST) S.C.	\$6,925.00
M210-25U-01	M210 OTDR, QUAD (SC, FC, ST) S.C.	\$8,995.00

# **FLX380** Hand-held OTDR

The NOYES FLX380 FlexTester is the world's smallest, lightest, most complete single-mode fiber optic test set. It combines highperformance, multi-wavelength OTDR/PON OTDR, OLS, OPM, VFL and PON Power Meter in a rugged, hand-held package.

With 40 dB dynamic range, best-in-class event, attenuation, and PON dead zones, and AFL's unique ServiceSafe<sup>™</sup> and Wave ID features, the Noyes FLX380 FlexTester offers an unmatched combination of optical test functions, ease-of-use, portability and value. FLX380 FlexTester is offered in three models to best suit your application requirements (see below for specs and kits).

#### **Features**

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- Standard OTDR, live PON OTDR, PON power meter from one port!
- 40/37/37/35 dB dynamic range @ 1310/1490/1550/1625 nm
- 0.8/3.5 m event/attenuation dead zone, 40 m PON dead zone
- ServiceSafe™ live PON detection prevents OTDR from disrupting service on live PON, while allowing 1625 nm out-of-band OTDR test
- Easy to use Full Auto, Expert, PON and Real Time OTDR modes
- OLS/OPM with Wave ID Wave ID reduces test time by 80% and eliminates setup errors
- Rugged, hand-held and lightweight (<1 kg)
- High-contrast display: clear and bright, even in direct sunlight
- >12-hour operation, fast charge, Li-lon battery
- Instant On; Ready to test in <5 sec

#### Visit website for product specifications www.fiberoptic.com/product



- FLX380-100: Lowest cost, high-performance, all-in-one 1310/1550 nm OTDR, OLS, OPM and VFL for out-of-service installation testing or troubleshooting on both FTTx PON and point-to-point fiber optic networks.
- FLX380-102: 1310/1490/1550 nm OTDR, OLS, OPM and VFL for complete out-of-service testing at all FTTx PON wavelengths.
- FLX380-103: Most complete high-performance test set for verifying both in-service (live) and out-of-service FTTx PONs. Includes ServiceSafe™ live PON detection, integrated PON power meter and 1625 nm filtered live PON OTDR, all from a single port.

#### **ORDERING INFORMATION**

FLX380-100	FLX380 Flextester OTDR, 1310/1550nm	\$6,495.00
FLX380-102	FLX380 Flextester OTDR, 1310/1490/1550nm	\$8,295.00
FLX380-103	FLX380 Flextester OTDR, 1310/1550/1625nm	\$9,495.00

# **M700** Multifunction OTDR

The Noyes M700 series are full-featured Noyes OTDRs with an integrated Visual Fault Locator (VFL, 650 nm), Optical Power Meter (OPM), and a large transflective touch screen display suitable for both indoor and outdoor operation. Each M700 model includes the M700 OTDR, USB Flash drive, PC software for OTDR trace analysis and OPM loss reporting, AC adapter, switchable test ports adapters, and cleaning accessories in a soft carry case.

#### Features

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- 40 dB dynamic range single-mode
- 13-hour battery life
- Remote display capable
- Touch and Test<sup>™</sup> intuitive user interface
- Crisp bright display for indoor/outdoor viewing
- Integrated OPM standard; integrated VFL standard
- Inspection capable with DFS1 Digital FiberScope
- USB host and function ports
- TRM® (Test Results Manager) reporting software
- Prepaid Calibration plans, Cal and Cal Plus

#### Visit website for product specifications www.fiberoptic.com/product



#### Includes

M700 OTDR, USB Flash drive, PC software for OTDR trace analysis and OPM loss reporting, AC adapter, switchable test ports adapters, cleaning accessories, soft carry case

#### **ORDERING INFORMATION**

M700-20U-01	M700 Long Range 1310/1550 - SC, FC, LC	\$7,800.00
M700-21U-01	M700 L. Range 1310/1550/1625, SC, FC, LC	\$10,800.00
M700-24U-01	Noyes M700 Long Range QUAD - SC, ST, LC	\$12,995.00
M700-25U-01	Noyes M700 QUAD OTDR - SC, ST, LC	\$10,250.00

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# **C860** QUAD OTDR and Certification Test Kit

The C850 is both a QUAD Certification Tester and full-featured QUAD OTDR in a compact case with a large transflective touch screen display suitable for both indoor and outdoor operation. The C850 features single-mode and multimode OTDR, Optical Light Sources (OLS), Visual Fault Locator (VFL, 650 nm), and an Optical Power Meter (OPM). As an OTDR, the C850 supports Full Auto, Expert (manual) and Real-Time test modes, simultaneous dual and single wavelength testing, and Event and Pass/Fail analysis based on default or user-defined thresholds. The C840 QUAD Certification Tester includes VFL, OPM, and both singlemode (1310/1550 nm) and multimode (850/1300 nm) OLS. The C840 may be used alone as a traditional power meter or light source to measure fiber loss or as a visual fault locator to find fiber breaks.

#### **Features**

- OTDR dynamic range: 22 dB (MM); 26 dB (SM)
- Inspection capable with the DFS1 Digital FiberScope
- Integrated OPM, OLS, and VFL (650 nm)
- OLS sources: LED 850/1300 nm; Laser 1310/1550 nm
- Full Auto, Expert, Real-Time OTDR test modes
- >8 hours battery life or AC power
- Touch and Test<sup>™</sup> user interface
- TRM<sup>™</sup> reporting software
- Automatic Pass/Fail analysis (TIA/ISO/EN)
- Bellcore (GR-196) .SOR file format
- Internal (1000s tests) and USB storage
- Wave ID detect if used with NOYES Wave ID series light sources
- USB host and function ports



#### Includes

One hand-held C840 QUAD Certification Tester, one compact C850 QUAD OTDR/OLTS, USB Flash drive, PC software, (2) AC adapters, switchable test port adapters, and accessories (no test leads)

#### **ORDERING INFORMATION**

C860-100-LP1-H1	C860 QUAD OTDR Cert. Kit SC,ST, LC	\$15,750.00
C860-100-LP1-H2	C860 QUAD Cert. Kit, SC/LC Rings & Leads	\$16,995.00
C860-100-LP1-H5	C860 QUAD Cert. Kit, SC/ST Rings & Leads	\$16,995.00

#### Visit website for product specifications www.fiberoptic.com/product

## **OFL250-50** Hand-held, Fault-Locating OTDR

The Noyes OFL250-50 is a 1550 nm single-mode OTDR with an integrated optical power meter (OPM), 1550 nm laser source (OLS), and visual fault locator (VFL) in a handheld package weighing only 0.8 kg (1.7 lb). With short (1.5m) dead zone and mid-range dynamic range performance, the OFL250-50 is ideal for troubleshooting dark single-mode fibers in local area, metro area, and FTTx networks.

The OFL250-50 provides automatic and manual setup, precision event analysis, 12-hour battery life, internal data storage, and USB connectivity. OTDR and OPM test ports are equipped with tool-free adapters, which can be changed in seconds.

OTDR test results are saved as industry standard .SOR files, which can be transferred to a PC for viewing, printing, and analyzing with the supplied Windows (R) compatible software.

#### **Features**

- Available in 1310/1550 and 1550 only versions
- 26 dB dynamic range
- 1.5 m event dead zone
- Integrated OPM, OLS, VFL with tool-free interchangeable adapters
- Rugged, hand-held and light weight
- High-contrast display: Clear and bright, even in direct sunlight
- Internally stores > 1000 traces in .SOR format; Transfer to PC via USB
- Rechargeable 12-hour Li-Ion battery or AC power with instant On
- Windows® compatible software to view, print and archive test records



#### **ORDERING INFORMATION**

OFL250-50U-ENG	OFL250-50 Handheld, 1550nm OTDR	\$3,295.00

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OTDRS

# JDSU OTDRS

# **T-BERD-2000** Multiple Services Test Platform

Costs, workflow, quality, network performance, and customer experience are critical for the success of today's fiber optic networks. Selecting the right test tools has become key toward meeting these needs.

The JDSU T-BERD/MTS-2000 is a handheld multi-test platform that provides field technicians with a single handheld unit to install, turn-up and maintain these networks to the highest standards.

Its innovative design and hands-free bag ensure that all essential fiber test tools are close at hand, whatever the job or location. A large color screen with graphical user interface drives simple operation and optimal workflow in the field.

Test capabilities include a range of OTDR modules for multimode and single-mode testing, as well as a range of FiberCompleteTM modules for automated Insertion Loss/ Optical Return Loss (IL/ORL), and fault finding. Both OTDR and FiberComplete modules are passive optical network (PON) optimized. The unit is also ready for connector end face pass/fail analysis to IEC standards with a digital analysis microscope.

The PON power meter and CWDM-OSA modules also enable turn-up and troubleshooting of PON and coarse wavelength division multiplexing (CWDM) networks.

#### Features

OTDRS

TEST EOUIPMENT

- Large 5-inch touch screen display
- Field-installable modules
- Wide range of OTDR modules, including Quad and PON
- FiberComplete automated IL/ORL, PON power meter, and CWDM analyzer
- Automated fiber inspection and IEC pass/fail analysis
- Optional built-in optical power meter, visual fault locator (VFL), and optical talk set
- New-generation Lithium Polymer (LiPo) battery for 8 hours operation
- Flexible connectivity with Ethernet, USB, Bluetooth and WiFi capabilities
- Special hands-free bag as standard
- Cross-compatible with T-BERD/MTS-4000

#### **ORDERING INFORMATION**

ETB2000T

JDSU T-BERD-2000 Handheld OTDR

Handheld OTDR \$1,730.00

**Includes:** Touch screen, hands-free soft case, shoulder strap, power supply with 5 adaptable plugs (US, Europe, UK, Australia, Japan), one USB cable, Getting Started manual

#### Mainframe only



#### **SPECIFICATIONS**

Display	5-inch TFT color touch screen (12.5cm) Resolution 800 x 480 WVGA	
Interfaces	Two USB2.0 ports, One mini-USB2.0 port, RJ-45 LAN 10/100/1000Mbps, Built-in Bluetooth (optional), Built-in WiFi 802.11 b/g/n (optional)	
Internal memory	1GB (128MB for storage)	
Battery type	Rechargeable Lithium-Polymer battery 8 hours of operation as per Telcordia GR-196- CORE	
Power supply	AC/DC adapter, input 100-250 VAC, 50-60Hz; 2.5A max, output 12VDC, 25W Electrical safety: EN60950-compliant	
Temperature	Operating: -20 to +50°C (-4 to 122°F) Storage: -20 to +60°C (-4 to 140°F)	
Humidity non-condensing	95%	
Size (W x H x D)	175 x 138 x 80mm (6.9 x 5.4 x 3.2in)	
Weight	with battery 0.864 kg (1.89 lbs) with battery and LM OTDR 1.21 kg (2.67 lbs)	
Power Meter		
Calibrated wavelengths	850/1310/1490/1550/ 1625/1650	
Wavelength range	800 to 1650 nm in 1 nm steps	
Accuracy	±0.2 dB	
Measurement range	+5 to -50 dBm	
Maximum resolution	0.01 dB/0.01nW	
Connector type	Universal Push Pull (UPP)	
Visual Fault Locator		
Wavelength	650 nm	
Emission mode	CW, 1Hz	
Laser class	Class 2 as per standards EN60825-1 and FDA21 CFR Part 1040.10	
Talk Set		
Dynamic range	32dB (typical)	
Connector types	SC, FC, and UPP (three adapters included)	

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# JDSU OTDRS

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# **T-BERD-4000** Multiple Services Test Platform

The T-BERD 4000 is a highly integrated platform that features two module slots, a large 7-inch color screen (with a touchscreen option), a high-capacity Lithium-Ion battery, an optional video inspection scope (through universal serial bus [USB] port), and optional built-in optical test functions, such as a visual fault locator (VFL), power meter, and optional WiFi/Bluetooth interface.

### **Features**

- · Cost-effective, dual-modular and handheld platform
- Large 7-inch display (touchscreen option)
- Comprehensive connection checker functionality with built-in VFL, power meter, and scope
- Flexible connectivity including USB, high-speed 1G Ethernet, WiFi, and Bluetooth interfaces
- Automated test and data reporting capability
- Integrated web browser

### **Broadband Power Meter**

The T-BERD/MTS-4000 comes with optional built-in power meters that let technicians easily verify the presence of a signal. The large screen of the T-BERD/MTS-4000 displays power values in large fonts, allowing for immediate interpretation of results.

### Visual Fault Locator

The VFL features, available as an option on the T-BERD/MTS-4000 platform, offers built-in 635 nm visual fault location on a universal connector.

### **Video Inspection Probe**

The optional fiber inspection probe facilitates the Inspect Before You ConnectSM process. The T-BERD/MTS-4000 offers this capability through a USB port connection, which allows for quick and easy inspection of connector end faces for contamination and also enables capturing the image and storing it in jpeg format.

**Ethernet Testing** The T-BERD/MTS-4000 enables Internet connectivity testing using an integrated Web browser and also performs required Internet Protocol (IP) data tests, including IP Ping and File Transfer Protocol (FTP) testing, to verify bandwidth requirements for real-time applications and services (such as online gaming and streaming video).

### **ORDERING INFORMATION**

Includes: Handheld platform w/ super-size 7" landscape high res. color display, Short Range (32/30dB 1310/1550nm) SM OTDR Module w/ Light Source/Power Meter option in module, UPC Connector, SC connector adapter, wrap-around carrying case, AC Adapter, Manuals

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### **SPECIFICATIONS**

SPECIFICATIONS			
Display	TFT color, 7-in, LCD 800 x 480, high visibility for outdoors, Touchscreen, TFT color, 7-in, LCD 800 x 480, high visibility for outdoors		
Storage and I/O Interface	Internal memory		
WiFi	Standard IEEE 802.11 b/g		
Bluetooth	Class 2, up to 10 m range		
Audio interface	2.5 mm jack connector		
Ethernet	10/100/1000 MHz full-half duplex		
Battery type	Standard removable Li-Ion batteries		
AC/DC adapter	Input 100-250 V, 50-60 Hz Output 12-15V DC/3.7 A		
Electrical safety	EN 60950 Compliant		
Operation time	Up to 11 hours with standard display Telcordia GR-196-CORE		
Size (W x H x D)	10.2 x 5.3 x 3.5 in		
Weight	Mainframe only (with battery) 3 lb Mainframe with one module (with battery) <4.35 lb		
Environmental Specific	ations		
<b>Environmental Specific</b> Operating temperature range (no option)	-4 to 122°F		
Operating temperature			
Operating temperature range (no option) Operating temperature	-4 to 122°F		
Operating temperature range (no option) Operating temperature range (all options) Humidity, non-condens-	-4 to 122°F 32 to 104°F 95%		
Operating temperature range (no option) Operating temperature range (all options) Humidity, non-condens- ing	-4 to 122°F 32 to 104°F 95%		
Operating temperature range (no option) Operating temperature range (all options) Humidity, non-condens- ing Base Unit Optical Intern	-4 to 122°F 32 to 104°F 95%		
Operating temperature range (no option) Operating temperature range (all options) Humidity, non-condens- ing Base Unit Optical Intern Power Meter	-4 to 122°F 32 to 104°F 95% faces (optional)		
Operating temperature range (no option) Operating temperature range (all options) Humidity, non-condens- ing Base Unit Optical Intern Power Meter Power level	-4 to 122°F 32 to 104°F 95% <b>faces (optional)</b> +10 to -60 dBm		
Operating temperature range (no option) Operating temperature range (all options) Humidity, non-condens- ing Base Unit Optical Inter Power Meter Power level Calibrated wavelengths	-4 to 122°F 32 to 104°F 95% <b>faces (optional)</b> +10 to -60 dBm 850, 1310, and 1550 nm		
Operating temperature range (no option) Operating temperature range (all options) Humidity, non-condens- ing Base Unit Optical Intern Power Meter Power level Calibrated wavelengths Connector type	-4 to 122°F 32 to 104°F 95% <b>faces (optional)</b> +10 to -60 dBm 850, 1310, and 1550 nm		
Operating temperature range (no option) Operating temperature range (all options) Humidity, non-condens- ing Base Unit Optical Intern Power Meter Power level Calibrated wavelengths Connector type Visual Fault Locator	-4 to 122°F 32 to 104°F 95% <b>faces (optional)</b> +10 to -60 dBm 850, 1310, and 1550 nm Universal push/pull (UPP)		
Operating temperature range (no option)Operating temperature range (all options)Humidity, non-condens- ingBase Unit Optical Inter Power MeterPower MeterPower levelCalibrated wavelengths Connector typeVisual Fault Locator Wavelength	-4 to 122°F 32 to 104°F 95% <b>faces (optional)</b> +10 to -60 dBm 850, 1310, and 1550 nm Universal push/pull (UPP) 635 nm ±15 nm		
Operating temperature range (no option)       Operating temperature range (all options)         Humidity, non-condensing       Interval         Base Unit Optical Interval       Interval         Power Meter       Interval         Power level       Calibrated wavelengths         Connector type       Visual Fault Locator         Wavelength       Output power level	-4 to 122°F 32 to 104°F 95% <b>faces (optional)</b> +10 to -60 dBm 850, 1310, and 1550 nm Universal push/pull (UPP) 635 nm ±15 nm <1 mW		

Quick Capture Probe Kit (via USB)				
Magnification	200X and 400X			
Interface	through the USB port			

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FC, SC, SC-APC, LC, U25, U25MA, U12

# **T-BERD 6000/T-BERD 6000A**

**Compact OTDR Solution** 

### **T-BERD 6000**

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JDSU's T-BERD 6000 is a compact and lightweight test platform designed for the installation and maintenance of fiber networks. It provides field service technicians with the highest levels of performance and upgradeability on the market today.

Modular in design, the T-BERD 6000 offers an extensive portfolio of test functionality with over forty different fiber modules supporting a wide range of applications. The versatility of the T-BERD 600 allows technicians to standardize using one type of test equipment and then introduce new testing capabilities in the field without incurring additional costs.

Since the T-BERD 6000 is compatible without existing fiber module product line, technicians can exchange plug-in modules between the T-BERD 6000 Multiple Network Test Platform and the T-Berd 6000, in the field and without the need for additional tools. To ensure the highest level of return on your test equipment capital investment, existing OTDR modules from the MTS-5100 can be transformed (with and extension) for use with the T-BERD 6000

### **T-BERD 6000A**

The JDSU TB-6000A is a highly integrated test platform designed for all phases of network lifecycle from the installation to the highest levels of performance and upgradeability on the market today.

Modular in design, the TB-6000A offers an extensive portfolio of test functionality with over forty different modules supporting a wide range of applications. The versatility of the TB-6000A allows technicians to standardize using one type of test equipment and then introduce new testing capabilities in the field without incurring additional training and device costs.

# FeaturesLightweight platform

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- Large 8.4 inch transreflective TFT color display improves viewing under any conditions.
- Intuitive graphical user interface with touchscreen option
- Extended battery life using smart Lithium ion cell.
- Connection Check with VFL, power meter, Loss Test Set/ ORL meter and video inspection scope options
- Built-in optical talkset option for communicating along the fiber.
- Unique automatic bi-directional analysis function available to save up to 50% test time for OTDR, IL, and ORL measurements.
- Fast data transfer via USB, Ethernet port and 1Gb extended memory option.
- Exceeds Telcordia specifications for ruggedness, drop testing, and extended battery life

### **SPECIFICATIONS**

Wavelength (nm)	1310 / 1550 ±20
Event Dead Zone (m)	2.5
Attenuation Dead Zone (m)	8
Dynamic Range (dB)	32 / 30 (1310 / 1550 nm)
Distance Range	Up to 260 km
Data Points	Up to 128,000
Storage Capacity	1000 test results
Ports	(2) USB, (1) RJ-45
Display Size	TFT color, 8.4", LCD 800 x 600, high visibility (standard)
Size (H x W x D)	285 x 195 x 93 mm (11.2 x 7.7 x 3.7 in)
Weight	3.4 kg (7.5 lb)



### **ORDERING INFORMATION**

ETB6000	T-BERD 6000 platform with high visibility color display and battery pack
ETB6000T	T-BERD 6000 platform with high visibility touchscreen color display and battery pack
TB6000AT	T-6000A platform with high visibility touchscreen color display and battery pack

### **Additional Parts**

E60EXTMEM	Extended Memory	\$315.00	
E80VFL	VFL with UPP connector	\$1,151.00	
E80TS	Optical talkset	\$2,425.00	
E80PM	Optical power meter with UPP connector (2.5 mm provided as standard)	\$837.00	
E8036LTSTS	Optical loss test set with talkset	\$5,873.00	
E60LIION	Additional high power Li-ion rechargeable battery	\$157.50	
Main Modules	(single slot plug-in modules)		
E81xxSR, E81xxDR, E81xxHD, E81xx- VLR, E81xxUHD, E8123MM	OTDR module		
E81PMD,	PMD module	\$23,037.00	
E81WDMPMD	PMD module	\$30,320.00	
E81WDM	WDM module	\$20,895.00	
E5083CD	CD module	\$31,620.00	
Application So	ftware		
EOFS100	Optical FiberTrace software(for port analysis)		
EOFS2OO	Optical FiberCable software (for acceptance report generation)		
(connector must be Field replaceable con	for the loss test set and talkset option e of the same type) mectors: EUNIPCFC, EUNIPCSC, EUNIPCST FC, EUNIAPCSC, EUNIAPCST, EUNIAPCDIN	, EUNIPCDIN,	

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OTDRS

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# **T-BERD 8000**

# Comprehensive Optical Network Platform

The T-BERD 8000 is a field-scalable optical test platform for both installation and maintenance. Based on the rich T-BERD heritage, the T-BERD 8000 is the industry's most innovative and cost-effective test solution for metro networks. A single Transport Module provides an integrated solution for Ethernet, SONET, SDH, PDH, and T-carrier networks. Optical Modules allow thorough testing of short-haul, long-haul, FTTx, CWDM, DWDM and ROADM networks.

### **SPECIFICATIONS**

Display	TFT color, 10'4 in, LCD 800x600 TFT color, 10'4 in, LCD 800x600, High visibility Touchscreen TFT color, 10'4 in, LCD 800x600, High visibility		
Storage	Internal memory 16 MB Hard disk (optional) min 20 GB Floppy disk drive (optional) 3.5 in MSDOS compatible		
	CD read/write (optional)		
Input/Output	RS232C x USB, VGA, RJ45 Ethernet RJ11 modem (optional)		
Battery type	Standard removable Li-lon batteries		
Operation time	Up to 16 OTDR hours with two batteries and stan- dard display, Telcordia GR-196-CORE		
Internal charger	Yes		
Charging time	<3 hours per battery		
DC input	19 to 25 V		
Power supply	Input 100 to 240 V		
AC/DC adapter	50 to 60 Hz, 1.8 A, out put 19 V DC/3.1 A		
Size (W x H x D)	Mainframe w/ back plate12.6 x 10.4 x 2.1Unit w/receptacle + battery pack12.6 x 10.4 x 4.5		
Weight	Mainframe w/ back plate6.39 lbsUnit w/receptacle + battery pack11.9 lbs		
Operating temperature range (no option)	-4 °F to 122 °F		
Operating temperature range (all options)	-4 °F to 140 °F		
Storage	-4 °F to 140 °F		
Humidity	95% without condensing		
EMI/ESD	CE compliant		



### **Features**

- Configure with numerous application modules and a variety of storage media, including USB memory stick, and read/write CD-ROM.
- All application modules are field-installable so that existing MTS-5000 users can simply field install the optical plug-in by adding an extender.
- A large color transreflective display is offered as standard for improved visibility for use in direct sunlight.A touchscreen option is available.
- Base unit can house Visual Fault Locator(635 nm), Power Meter (800 to 1650 nm), Loss Test Set/ORL meter, as well as Optical Talkset (45 dB) options
- Optical Talkset allows both communication and file transfer.
- Comprehensive suite of PC software tools for post-processing of test results via FiberTrace (OFS-100)and FiberCable (OFS-200)

### **ORDERING INFORMATION**

ETB8000bt	T-Berd 8000 Tester Mainframe ONLY	\$5,659.50
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### **\*PLEASE CALL FOR CONFIGURATIONS\***

### **OTDR Module Specifications**

	High performance multimode MM	Short range singlemode SR	Medium range singlemode DR	Long range singlemode HD	Very long range singlemode VLR	Ultra long haul singlemode UHD
Central wavelength	850/1300 nm ± 20 nm	1310/1550 nm ± 20 nm	1310/1550 nm ± 20 nm	1310/1550/1625 nm ± 20 nm ± 10 nm for 1625 nm	1310/1550/1625 nm ± 20 nm	1310/1550/1625 nm ± 20 nm ± 10 nm for 1625 nm
Laser safety class (21 CFR)	Class 1	Class 1	Class 1	Class 1	Class 1	Class 1
Pulse width	3 ns to 200 ns	10 ns to 10 µs	10 ns to 20 µs	10 ns 20 µs	3 ns to 20 µs	10 ns to 20 µs
Distance range	Up to 80 km	Up to 260 km	Up to 260 nm	Up to 380 km	Up to 380 km	Up to 380 km
RMS dynamic range	25 dB/23 dB	37 dB/35 dB	37 dB/35 dB	42 dB/40 dB/40 dB	45 dB/43 dB/ 43 dB	46 dB/50 dB/ 46 dB
Event dead zone	1.5 m	1 m	1 m	4 m	0.8 m	4 m
Attenuation dead zone	5 m	8m	15 m	15 m	4 m	15 m

# **PR ERK Kit** Emergency Response Kit



### ERK-1 Includes:

PRO-790	PRO-790 Fusion Splicer
OBL-201A	Optical Break Locator
LS-102D	LS-102D Light Source (1310/1550)
PM-102B	PM-102B Power Meter (+23 to -43)
OFI-30	OFI-30 Optical Fiber Identifier
VFL-5	Visual Fault Locator 1mw
VIP-35-K2	3.5 Inch Video inspection kit 2
PRO-TC-1	SqueekyKleen Telcom Cleaner Satur. Wipes
PRO-CS-125	PRO Cleaning Stick - 1.25mm (LC)
PRO-CS-250	PRO Cleaning Stick - 2.5mm (SC)
PS-S-500-CUCU-1	Launch Box SM9 500M SC/UPC-SC/UPC
PC-S-ACUCU01F	SC/UPC - Simplex (9um) - 1 meter
PC-S-ACACU01F	SC/APC-SC/UPC PC Simplex SM9 3mm 1M
PC-S-AFUCU01F	FC-SC Simplex SM UPC Patchcord 1 Meter
CA-S-SC-S6SPZ	SC/UPC - SC/UPC Adapter
CA-S-SC-A6SPZ	Mating Sleeve SCAPC SM, Flanged Simplex
FOM-1002	Splice Sleeve: 60mm Clear
JIC-186	Kevlar Shears
80785	Mid Span Access Tool
PRO-CT-001	Cassette Cleaner
PRO-LFW-100	Fiber Optic Clean Wipes
PRO-FSC-200	Fiber Scrap Container
PRO-QC-2LP	Spray Connector Cleaner
FOM-0008	Electrical Tape
CST-1900	Round Cable Stripper
SMART-STRIP	Buffer Tube Stripper
10-099H	Utility Knife
SR-101	Seam Ripper
KN-7	Ergonomic Cable Splicing Knife
AA-SA	Stainless Steel Tweezers
JIC-375	Tri Hole Strippers
SHARPIE-BK	Sharpie Marker Black
PRO-ERBK	Laptop Back Pack w/ hard shell
PRO-METL Bag	Tool Bag

# ERK-1

Of course, the PRO ERK-1 is the all-in-one perfect solution to tackle quick restoration of fiber optic networks - but it's not just for disaster scenarios. The PRO ERK-1 contains everything needed for any fiber repair job, large or small, but the price-point is where we leave the competition in the dust.

Just imagine, for about the price of a single fusion splicer from, you'll get a complete fieldtested, ruggedized restoration kit from PRO, which includes every piece of equipment and cleaning product essential for in-the-field fiber repair.

Plus, it all comes contained in a super-ruggedized backpack made by Pelican<sup>®</sup>, known the world over for their durable cases, designed specifically to protect high-end electronic equipment. The Pelican<sup>®</sup> backpack included with an ERK even contains a special hard-shell compartment that accommodates up to a 17" laptop.



# ERK-2

The addition of the PRO "Super-Tech" Multi Tool makes the PRO ERK-2 more than just a portable repair kit. The PRO "Super-Tech" tool contains 6 essential technician tools, including a Channel Analyzer (1417-1611nm), Light Source, Video Inspection Probe, Visual Fault Locator, Power Meter and OTDR (1310/1550; 36/34dB) all in one unit!

A technician, armed with the ERK-2, can perform not only repair operations, but can also undertake complex network diagnostics, all from one kit, contained in a single backpack!



NOTE: OBL-201A, PM-102B and VIP-35-K2 has been replaced with the PRO "Super-Tech" OTDR

### **ORDERING INFORMATION**

ERK-1	PRO Emergency Response Kit 1	\$14,995.00
ERK-2	PRO Emergency Response Kit 2	\$21,995.00

PR

# PRO OLM-212A-ORL Multifunction Loss Tester Insertion Loss / Return Loss

The PRO Optical Insertion Loss/Optical Return Loss meter (p/n: OLM-212A-ORL) is an integrated tester for fiber optic technicians and cable manufacturers. Particularly useful for installation, the lightweight, handheld multi-function meter allows a technician to instantly ascertain the quality of a particular fiber section or a complete network.

The PRO OLM-212A-ORL combines 4 tools in 1: Optical Insertion Loss Meter, Optical Return Loss Meter, CW Laser Source and Power Meter, all in one compact, ruggedized, hand-held unit. The wide range of onboard tools allow the OLM-212A-ORL to be used in Optical Telecom, CATV Networks and Enterprise Accounts, as well as in lab environments, research environments and cable manufacturing.

### **Return Loss Meter**

Output Wavelength (nm)	1310nm, 1550nm
Measurement Range	0-55dB; 0.4dB; 55-65dB; 1dB
Calibrated Wavelengths	1310nm & 1550nm
Measurement Accuracy	0-55dB/15min
Stability	0.05dB/15min
Connector Type	FC/APC, SC/APC, ST/APC
Resolution	0.1dB
Data Storage	500 Test Results
Power Output	-2dBm

-70dBm-7dBm

-70dBm~-60dBm: 1dB:

270HZ, 1KHZ, 2KHZ

500 Test Results FC/SC/ST

### **Power Meter**

**Calibrated Wavelengths** 850nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm **Measurement Range** Measurement Accuracy -60dBm-7dBm: ± 0.2dB ± 1nW **Modulation Detection** Resolution -70~ -60dBm:0.1dB; -60~+7dBm:0.01dB Data Storage Connector

### Laser Source

Calibrated Wavelengths	1310, 1550nm
Measurement Range	0-70dB
Measurement Accuracy	0-60dB:0.2dB; 60-70dB:1dB
Data Storage	500 Test Results
Connector Type	FC/SC/ST

### Other

Adapter	Input: AC100-240V50/60Hz Output: DC6V/1A
USB Connector	Yes
Battery	2*AANI-MH 1.2V2500mAh Rechargeable
Working Temperature	-5~+50 °C
Storage Temperature	-20~+70 °C
Working Humidity	0-90% No Condensing
Support Remote Upgrade	Yes



### **Features**

- 4 tools in 1: Optical Insertion Loss Meter, Optical Return Loss Meter, Power Meter, CW Laser Source
- High-precision ORL testing at 2 wavelengths (SM 1310/1550nm)
- Powered by Li-ion battery or AC power supply
- Includes FC/SC/ST connector adapters

### **ORDERING INFORMATION**

**OLM-212A-ORL** Insertion Loss & Return Loss Meter \$1,985.00

Includes: User Manual, Rechargeable Batteries, Carrying Bag,Interchangeable FC/SC/ST Connectors, AC/DC Adapter/ Charger, PC Software CD, USB Connecting Cable, Test Report, FC/ APC-FC/APC Patchcord, FC/APC-FC/PC Patchcord, Cleaning Swabs iber optic.con

# PR© 5350 Series OTDR

The PRO 5000 Series Optical Time Domain Reflectometer (OTDR) is the new generation of intelligent OTDR for use in fiber communications systems . With an increase in optical network construction in cities and suburbs, there is often a need for higher power OTDRs. The PRO 5000 Series is specifically designed for such applications.

The PRO 5000 Series is manufactured to precise engineering and design tolerances with usability, durability and expandability in mind. Subject to stringent mechanical, electronic and optical testing, quality can be seen and felt from the ruggedized body and high-resolution display to the soft-touch keypad and user-friendly USB interface.

The PRO-5350 OTDR comes standard with a VFL and touchscreen, but is also available with such options as GPS, SC, ST & LC Adapters, Bare Fiber Adapter, Video Inspection Probe, BlueTooth and WiFi. There's even a waterproof version! With all of the functionality and portability of the PRO-5350, you'll be ready to tackle any job, large or small.

### **SPECIFICATIONS**

Pulse Width	3-20Kns
<b>Operational Wavelength</b>	1310/1550 (Standard) Also Available in 1625 (With Optional Filter)
Dynamic Range	32/30dB (Standard) Also Available in: 35/33dB, 40/38dB, 43/41dB
Full Distance Accuracy	240Km
Sampling Resolution	Minimum 0.25m
Sampling Point	Maximum 128,000 Points
Linearity	≤0.05dB/dB
Loss Threshold	0.01dB
Loss Resolution	0.001dB
Distance Resolution	0.01m
Distance Accuracy	± (1m+Measuring Distance x 3 x 10 <sup>-5</sup> + Sampling Resolution)
Internal Visual Source	10mW, CW/2Hz
VFL	-5dBm
Data Storage	40,000 Groups of Curve
Interface	1-RJ-45 Port, 3-USB Port (2-Type A, 1-Type B)
Display	7 Inch TFT-LCD (Touch-Screen Function is Optional)
Battery	7.4V/4.4Ah Lithium Battery (with Aviation Certification), Continuous 6 Hours Working
Working Temp.	-10 <sup>0</sup> C ~ +50 <sup>0</sup> C
Storage Temp.	-20 <sup>0</sup> C ~ +70 <sup>0</sup> C
Humidity	≤95% (Non-Dew)
Dimension	253 x 168 x 73.5mm / 1.5kg (Battery Included)



### **Features**

- 7" TFT Color Display
- Soft-Touch Keypad
- Ruggedized Construction
- User-Friendly Interface
- Comes Standard with Built-In VFL and Touchscreen

### **ORDERING INFORMATION**

PRO-5350	OTDR 1310/1550 32/30 w/VFL	\$6,120.00
PRO-5350-TS-40F	OTDR 1310/1550/ w/F1625 w/VFL	\$12,580.00
PRO-5350-TS-D35	OTDR 1310/1550 35/33 w/VFL	\$6,845.00
PRO-5350-TS-D40	OTDR 1310/1550 40/38 w/VFL	\$7,770.00
PRO-5350-TS-D43	OTDR 1310/1550 43/41 w/VFL	\$10,175.00
PRO-5350-TS-T40	OTDR 1310/1550/1625 40/38/38	\$12,025.00

**Includes:** Main Unit, 12V Power Adapter, Lithium Battery, FC Adapter, 10mW VFL, USB Cord, User Guide, Test Report Software CD, Carrying Case

PR

877-529-9114 sales@fiberoptic.com

🚯 Bluetooth®

# **PR FBE-300 Series FiberBase** Enabled OTDR

The USA made FiberBase enabled OTDR is controlled by any 2.2 or newer Android® device with Bluetooth capability. The display size is determined by the Droid® device.

The PRO-FBE-OTDR is the most affordable OTDR on the market today. Using a smart phone or tablet to control the OTDR affords the user many options, such as user-friendly management and file transfer. This unit is available in SM, MM and Quad wavelength options. Testing is made simple and fast with the press of the Auto-Test button. Tap an event and the active cursor moves directly to that event on the trace. With the offered dynamic ranges and a 2-meter dead zone make it ideal for up to 240km as well as being perfect for short LAN links within the facility.

Weighing in at just over one pound, this OTDR is ideal for all conditions. With the remote capability of the Android operating system, you always have the screen in the best operation position possible. Files are saved in .sor Telcordia format and can be transferred to a PC or laptop if desired. Trace storage is only limited to the capability of the Droid® device.

### **Specifications**

850, 1300, 1310,1550, ±20nm
27/26dB MM, 32/30dB SM
20 - 10,000 ns
km, kf
2m
5m
.25 - 64m
±(0.75m + 0.005% x distance + sampling resolution)
1-64km MM , 1-240km SM
>1Hz
1.024 - 2.048
± .05 dB/dB
1000 traces
Bluetooth, USB PC
Universal
4hr
-20 to 60 C
-10 to 50 C
7.62" L x 3.88" W x 1.56" H (194mm L x 99mm W x 40mm H)
1.4lbs.
FC, ST, SC Interchangeable





Interaction with other applications on your device such as GPS and "Speech to Text" make this an even more powerful instrument

### **Features:**

- Most Affordable OTDR on the Market
- Short Dead Zone
- 32 dB Dynamic Range (SM)
- Ultra-Fast Trace Acquisition
- One-Button Testing
- Event Table with Pass/Fail Feature
- Trace Comparison with Trace Overlay
- Super-Simple Graphical User Interface
- Easy Training with Onboard Help Screens
- SM, MM and QUAD Units Available

### **Standard Accessories**

Universal Power Adapter w/US, UK, CE, and AU Plugs, Interchangeable FC/ST and SC Adapters, Windows/Telcordia SR4731 Software, Rubber Boot, USB Cable, Manual on CD

### **ORDERING INFORMATION**

FBE-300-SM	PRO FiberBase Enabled SM OTDR	\$6,350.00
FBE-300-MM	PRO FiberBase Enabled MM OTDR	\$6,350.00
FBE-300-QUAD	PRO FiberBase Enabled QUAD OTDR	\$10,287.50

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# **PR 2 Series** Bluetooth Enabled OTDR



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OTDRS

EST EQUIPMENT

### Features

- Event Table with Pass/Fail Feature
- One Button Testing
- Controllable with Android Device
- Telcordia Compatible Software Included
- Trace Comparison with Trace Overlay

The PRO 2 Series OTDR is the most affordable Bluetooth-enabled OTDR on the market today. With features typical of more expensive units such as Trace Overlay, Color Display, One-Button Autotest and Event Analysis, the PRO 2 Series is a serious workhorse. And, because it's Bluetooth compatible and Android-ready, you can operate the OTDR wirelessly, via your Android phone or tablet. The Android device also allows for more mobility, a more powerful file management system, Geo-tagging of files, easy file sharing as well as a display limited only by the size of your Android device.

The PRO 2 Series OTDR's abundant dynamic range and a 2 meter dead zone makes it ideal for links up to 180km, as well as being perfect for short LAN links within the facility and FTTA/FTTH applications.

Trace Analysis and report viewing is fast and easy with the Pass/ Fail feature utilizing the onboard event table and the supplied Telcordia SR4731 compatible software with multi-trace capability. The PRO 2 Series OTDR has onboard storage for 1000 traces and 10,000 lost tests with the ability to download traces directly to your computer via USB port.

### **Ordering Information**

<b>PRO-2SM-35</b> PRO 2 Series OTDR PRO-2SM-35	\$3,795.00
	\$5,795.U

# <table-of-contents> Bluetooth 🕻

Can be Controlled with Your Android Smart Phone or Tablet!!

# **PR© 3 Series** OTDR w/LTS & optional VFL

The PRO-3 Series OTDR is the most affordable Hand-Held OTDR on the Market today with all of the features of more expensive units. Features such as Trace Overlay, Visual Fault Locator, Loss Test Set, Color Display, One Button Autotest and Event Analysis are included. This unit is available in dual single mode, dual multimode and Quad versions.

The PRO-3 Series OTDR's abundant dynamic range and a 2 meter dead zone, makes it ideal for links up to 240km as well as being perfect for short LAN links within the facility. Use the integrated power meter and light source capabilities to accomplish insertion loss test measurements.

Trace analysis and reporting is fast and easy with the Pass/ Fail feature, onboard event table or the supplied Telcordia SR4731 compatible software with multi-trace capability. The OTDR has on board storage of 1000 traces and 10,000 lost tests with the ability to download traces directly to your computer via USB cable.

### Features:

- Most Affordable OTDR on the Market
- Short Dead Zone
- 32 dB Dynamic Range
- Integrated Loss Test Set
- Ultra Fast Trace Acquisition
- One Button Testing
- Short Dead Zone

ΔΔ

- Trouble Shooting with VFL
- Event Table with Pass/Fail Feature
- Trace Comparison with Trace Overlay
- Easy Training with Onboard Help Screens
- Telcordia Compatible Software Included
- Light Weight Rugged Enclosure
- Onboard Memory for 1000 traces

### **Ordering Information**

PRO-3SM-35-FP	1310/1550nm SM OTDR with LTS and VFL	\$5,725.00
PRO-3MM-83-FP	850/1300nm MM OTDR with LTS and VFL	\$5,725.00
PRO-3Q-FP	850/1300/1310/1550nm Quad OTDR with LTS or VFL	\$7,995.00



# Fiber Optic.com

**TEST EQUIPMENT** 



# PR© 5 Series OTDR w/LTS & VFL

The PRO-5 Series Optical Time Domain Reflectometer performs a wide variety of functions as well as being a fast, simple to use OTDR. Its instant on feature, ease of use, rugged housing and affordable price make this the best day to day unit on the market. It is available in 850/1300nm dual multi mode, 1310/1550nm Dual Singlemode, 850/1300/1310/1550nm quad wavelength versions.

The PRO-5 Series has a 36dB dynamic range and a 1 meter dead zone. These specifications, and a full set of operational modes (such as: one button fault finder, construction, real time and full manual) make it perfect for testing and troubleshooting requirements, in LAN networks to Metro networks. The PRO-5 Series OTDR also includes a Visual Fault Locator, AutoTest/AutoWave Power Meter, Stable Light Source and a Video Inspection Scope.

Print professional reports that can include loss tests set measurements and connector end face images with the included "CertSoft" certification software suite.

### **PRO-5 Series OTDR Specifications:**

Wavelength	850, 1300, 1310, 1550 nm ±20nm
Dynamic Range	27/26dB MM, 36/35/35dB SM
Pulse Width	5 - 20,000 ns
Units of Measurement	km, kf, mi
Event Dead zone	1m
Attenuation Dead Zone	4m
Resolution	.125 - 32m
Distance Uncertainty	±(0.75m + 0.005% x distance + sampling resolution)
Full Scale Distance Range	1-64km MM , 1-240km SM
Typical Real-time Refresh Rate	2 Hz
Group Index of Refraction (GIR)	1.024 - 2.048
Linearity	± .05 dB/dB
Memory Capacity	~500
Memory Type	Internal and Flash Drive
Power Supply / Charger	Universal
Battery	8hr
Storage Temperature	-20 to 60 C
Operating Temperature Range	-10 to 50 C
Dimensions (without rubber boot )	7.75" L x 4.5" W x 2.25" H (197mm L x 114mm W x 57mm H)
Weight	2 lbs
Communications ports	USB and USB Flash Drive Ports
Connector Styles	FC, ST, SC Interchangeable

### **ORDERING INFORMATION**

PRO-5SM-35-FP	PRO-5SM-35-FP SM OTDR w/LTS & VFL	\$6,495.00
PRO-5SM-35-VFP	PRO-5SM-35-VFP SM OTDR w/LTS, VFL, VIP	\$6,995.00
PRO-5MM-83-FP	PRO-5MM-83-FP MM OTDR w/LTS & VFL	\$6,495.00
PRO-5MM-83-VFP	PRO-5MM-83-VFP MM OTDR w/LTS, VFL, VIP	\$6,995.00
PRO-5Q-FP	PRO-5Q-FP QUAD SMIMM OTDR wILTS & VFL	\$8,995.00
PRO-5Q-VFP	PRO-5Q-VFP QUAD SM/MM OTDR w/LTS, VFL, VIP	\$9,495.00
PRO-5TRI356-FP	PRO-5TRI356-FP SM OTDR w/LTS & VFL	\$8,995.00
PRO-5TRI356-VFP	PRO-5TRI356-VFP SM OTDR w/LTS, VFL, VIP	\$9,495.00



**Standard Accessories** 

Manual on CD

Universal Power Adapter w/US, UK,

Continental Europe, and Australian

SR4731 Software, Rubber Boot and

Plugs, Interchangeable FC/ST and

SC Adapters, Windows/Telcordia

### Features:

- Instant On36 dB Dynamic Range
- Short 1 meter Dead Zone
- SM, MM, Quad Units Available
- Fiber Inspection Video Probe Port
- Visible Fault Locator
- Onboard Memory of ~500 traces
- Auto-Wavelength Power Meter
- Stable Light Source
- Event Table with Pass/Fail Feature
- Context Sensitive Help
- Light Weight Rugged Enclosure
- Telcordia SR4731 Compatible Software
- Long Battery Life
- Full Auto, Construction and Expert Modes

### **Visible Light Source**

Emitter Type	Laser Photo Diode 1100 - 1700nm InGaAs -70-+9dBm with interchangeable FC Adapter
Wavelength	650nm ±5nm
Connector Type	2.5mm Universal
Output Power	1mW Max

### **Power Meter Specifications**

Detector Type	InGaAs
Connector Type	2.5mm Interchangeable
Dynamic Range	+5 to -77dB (CATV - +25 to -57dB)
Calibrated Wavelengths	850,1300,1310,1490,1550,1625nm
Units of Measurement	dBm, dB
Resolution	.01 dB
Power Measurement Uncertainty	$\pm$ 0.18 dB under reference conditions, $\pm$ 0.25 dB from 0 to -65 dBm, $\pm$ 0.35 dB from 0 to +5 dBm and from -65 to -77 dBm
Autotest Range	0 to -40dB

### **Light Source Specifications**

Fiber Type	Single mode, Multimode
Wavelengths	850, 1300, 1310, 1550 nm ±20nm
Output Power	0 dBm (-3dBm @ 1550nm)
Laser Safety Classification	Class I Safety Per FDA/CDRH and IEC-825-1 Regulation
Modulation Modes	CW, 270 Hz, 1000 Hz, 2000 Hz

The Fiber Optic Marketplace LLC<sup>®</sup> www.fiberoptic.com

# **PRO CWDM-LR / CWDM-HR** Hand-Held OTDR

All the features expected in a hand held OTDR and more are incorporated in the PRO-CWDM LR/HR Series. It is available in a variety of wavelengths with up to four wavelengths per unit. The Standard units are 1471/1491/1511/1531nm and 1551/ 1571/1591/1611nm. Other wavelengths combinations are available upon request.

Use the light source in CW mode with the onboard broadband power meter with selectable wavelengths. This OTDR is fast, easy to use, affordable and rugged. It boast a short dead zone, bright 4" color display and with an onboard context sensitive help system the OTDR has a minimal learning curve for all users.

The PRO-CWDM weighs in at less then 2.0 pounds with a hardened water resistant enclosure, this OTDR is great for all conditions. The rubber boot with bail will add protection and provides the ideal angle for viewing the display while operating on a work bench.



### **SPECIFICATIONS**

	CWDM-LR	CWDM-HR
Wavelength Range	1471/1494/1511/ 1531nm ±3nm	1551/1571/1591/ 1611nm ±3nm
Dynamic Range	30	dB
Pulse Width	20 - 10	0,000 ns
Units of Measurement	km, l	kf, mi
Event Dead zone	2	m
Attenuation Dead Zone	5	m
Resolution	.25 -	64m
Full Scale Distance Range	1-64km MM ,	, 1-240km SM
Typical Real-time Refresh Rate	4	Hz
Group Index of Refraction (GIR)	1.024	- 2.048
Linearity	± .05	dB/dB
Memory Capacity	10	000
Power Supply / Charger Universal	Univ	versal
Battery	8	hr
Storage Temperature	-20 to	o 60 C
Operating Temperature Range	-10 to	50 C
Weight	2	lbs

### **Features**

- Instant On
- Fast Real time
- 30 dB Dynamic Range
- Flexible Wavelength Configuration
- Event Table with Pass/Fail Feature
- Short Dead Zone
- Interchangeable Fiber Optic Connectors
- Video Inspection capability
- Broadband Power Meter
- Trace Overlay Capability
- Onboard Memory for 1000 traces
- Visible Fault Locator
- USB Flash Drive Port and Mini USB/PC Port
- On-Screen Tutorials
- Light Weight Rugged Enclosure
- Easy To Read Color Display
- Telcordia SR4731 Compatible Software
- Long Battery Life

### **Standard Accessories**

Universal Power Adapter w/US, UK, Continental Europe, and Australian Plugs, Interchangeable FC/ST and SC Adapters, Windows/Telcordia SR4731 Software, Rubber Boot

### **Ordering Information**

PRO-CWDM-LR	PRO-CWDM-LR	\$9,995.00
PRO-CWDM-HR	PRO-CWDM-HR	\$9,995.00

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OTDRS

TEST EQUIPMENT

# **PRO DWDM-LR / DWDM-HR** C Band/L Band Optical Spectrum Analyzer

The OSA Optical Spectrum Analyzer is the most rugged and affordable full featured Mini OSA in the market. It is designed for simple operation and is suited for field or lab use. The Mini OSA is available in up to 88 channels for C or L bands with 50 or 100 GHz channel spacing and displays a full scan twice a second.

The OSA offers high end features such as Power Tilt for channel equalization and Gain Tilt to adjust EDFA gain flatness. With its one button AutoTest feature, a full set of selectable scale limits and thresholds, the OSA makes zeroing in on channel measurements easy. For flexibility the channels are selected in wavelength or frequency and the information is displayed in graph or table mode on the 4 inch, high brightness color LCD.

The unit allows users to set Pass/Fail thresholds and can store up to 1000 tests that can be downloaded via the USB PC or USB flash ports and documented with the included certification software for fast, easy reporting. The onboard Help system guides new users through operation and assists in parameter settings. The OSA is housed in a rugged metal enclosure with a robust protective boot.



### **SPECIFICATIONS**

	DWDM-LR	DWDM-HR	
Wavelength Range	C-Band 1530 -1561nm (196.0 THz - 192.0THz)	L-Band 1574-1608nm (190.5 THz - 186.3 THz)	• Available for DWD
Channel Spacing	50GHz, 10	00GHz	• Up To 88 Channels
Wavelength Accuracy	±0.1n	m	<ul> <li>50 or 100 GHz</li> <li>Pass/Fail Thresholds</li> </ul>
Channel Power Range	+10dBm to	-50dBm	• Fast Real Time with
Absolute Accuracy	±1 d	В	<ul> <li>Bar Graph and Tab</li> <li>Auto Test Zooms in</li> </ul>
Max Composite Power	+28 dl	3m	Rugged Case w/Im
PDL	±0.15	dB	Solid State Optics-N
<b>Optical Rejection Ratio</b>	40dBc (@5	50GHz)	<ul> <li>Easy Operation wit</li> <li>Available for C, L B</li> </ul>
Measurement Time	< 1/2 Se	cond	<ul> <li>4" Color Display</li> </ul>
Readout Resolution	0.01c	İB	<ul> <li>8hr Battery Life</li> <li>Impact Resistant Bo</li> </ul>
Return Loss	>40dB		Stores 1000 test
Optical Interface	Universal UPC (FC/SC)		• USB/PC and USB FI
Graphical Display	Bar Graph and	Table View	
Display	4 in Colo	or TFT	
Dimensions	7.75 x 4.5 x 2	.25 inches	
Weight	2 lb:	5	Standard Acces
Battery	Rechargeable NiMH - 8	hours operating time	Universal power su
Power	100-240 universal US,	GB, EU, AU Mains	AU. Interchangeat patible software, U
Environmental	Operation -10	°C to 50°C	

- M
- and Drift Statistics
- <1/2 second Update
- le Displays
- on Active Channels
- pact Resistant Boot
- No Moving Parts
- h Help Mode
- ands
- oot
- ash ports

### sories

pply with mains for US, UK, CE and le FC and SC adapters, Window's com-JSB cable, manual and rubber boot

### **Ordering Information**

PRO-DWDM-LR	PRO-DWDM-LR C-Band OSA	\$9,995.00
PRO-DWDM-HR	PRO-DWDM-HR L-Band OSA	\$9,995.00

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OTDRS

# **PR**<sup>©</sup> Multi-Tasking Technician Tool

8 Channel CWDM Channel Analyzer 1310/1550 SM OTDR w/LTS, VFL & VIP

The PRO-8CW/35SM is a true multi-tasker with all the features and applications found in much higher priced test equipment. This is a dual wavelength OTDR, Eight Channel CWDM Channel Analyzer, Stable Light Source, Broadband Power Meter, Visual Fault Locator and Video Inspections Scope all in one unit. The OTDR has a 36/34dB (1310/1550) dynamic range and a short 1 meter dead zone. The Channel Analyzer has a 1/4 second refresh rate while scanning the top eight CWDM channels on the ITU grid (1471-1611nm). For flexibility the channel numbers are selected in wavelength or frequency and the information is displayed in graph and table mode on the 4 inch, high brightness color LCD.

This unit can store up to ~500 OTDR traces, 1000 CWDM scans, 10000 LTS measurements and 50 Video Scope images. Tests can be downloaded via the USB PC or USB flash ports and documented with the included Cert-Soft certification software to create professional reports. The video scope helps ensure connector cleanliness and integrity prior to connecting to the fiber optic port. The onboard Help system guides new users through operation and assists in parameter settings. The PRO-8CW/35SM is housed in a rugged metal enclosure with a robust protective boot.



### **OTDR**

Wavelength	1310, 1550,
Dynamic Range	36/34dB SM,
Pulse Width	5 - 20,000 ns
Units of Measurement	km, kf, mi
Event Dead zone	1m
Attenuation Dead Zone	4m
Resolution	.125 - 32m
Distance Uncertainty	±(0.75m + 0.005% x distance + sampling resolution)
Full Scale Distance Range	1-240km SM
Typical Real-time Refresh Rate	2 Hz
Group Index of Refraction (GIR)	1.024 - 2.048
Linearity	± .05 dB/dB
Connector Styles	FC, ST, SC Interchangeable
Memory Capacity	~500

### **CWDM Channel Analyzer**

Wavelength Range	8 Channel 1471-1611nm
Channel Spacing	20nm
Channel Pass Band	±6.5nm
Channel Power Range	+5dBm to -50dBm
Absolute Accuracy	±1 dB
Max Composite Power	+23dBm
PDL	±0.2dB
Adjacent Channel Isolation	30dB
Measurement Time	< 1/2 Second
Readout Resolution	0.01dB
Return Loss	>40dB
Optical Interface	Universal UPC (FC/SC)
Graphical Display	Bar Graph and Table View
Memory Capacity	1000 scans

### **Power Meter Specifications**

Detector Type	InGaAs
Connector Type	2.5mm Interchangeable
Dynamic Range	+5 to -77dB (CATV - +25 to -57dB)
Calibrated Wavelengths	850,1300,1310,1490,1550,1625nm
Units of Measurement	dBm, dB
Resolution	.01 dB
Power Measurement Uncertainty	± 0.18 dB under reference conditions, ± 0.25 dB from 0 to -65 dBm, ± 0.35 dB from 0 to +5 dBm and from -65 to -77 dBn
Auto Test Range	0 to -40dB

### **ORDERING INFORMATION**

PRO-8CW35SMVFP PR

PRO All in One

```
$9,995.00
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### **Visible Light Source**

Emitter Type	Laser Photo diode 1100 - 1700nm InGaAs -70 - +9dBm with interchangeable FC Adapter
Wavelength	650nm ±5nm
Connector Type	2.5mm Universal
Output Power	1mW Max.

### Light Source Specifications

Fiber Type	Single mode, Multimode
Wavelengths	850, 1300, 1310, 1550 nm ±20nm
Output Power	0 dBm (-3dBm @ 1550nm)
Laser Safety Classification	Class I Safety Per FDA/CDRH and IEC-825-1 Regulation
Modulation Modes	CW, 270 Hz, 1000 Hz, 2000 Hz

# **PR** - **3000 OTDRs** Handheld OTDR

The PRO-3000s is a portable OTDR which is stable + durable and aims at broadcast and telecommunications network measurement. It is also the first OTDR to achieve data share of point-to-point and point-to-multi-point via internet. You can remotely control this instrument via PC when conducting fiber maintenance and testing.

### **Features**

- Remotely control the instruments via internet\*
- 6.4" color TFT LCD
- Convenient one-button testing
- High-speed signal processing, less measurement time, and faster result analysis
- USB port, SD card slot, and Ethernet Port
- Compact and lightweight
- Shock and water proof, the battery typicaly exceeds 10 hours of working time
- Linux operating system for easy upgrade
- Battery is changeable, on site
- Supporter for hand-free testing
- Anti-shock rubber protection

### **Specifications**



### 1310/1550 Wavelength

Distance (Km)	5m-200km
Pulse width(ns)	5ns-20µs
Measurement time	user-defined (smart link) with real-time measurement function
Distance uncertainty(m)	±(0.5m ±0.001%×testing distance±resolution)
Linearity	±0.05dB/dB
Loss threshold(dB)	0.01dB
Loss resolution(dB)	0.001dB
Distance resolution(m)	0.1m
Sampling points	64000
Data storage	1000 items (PRO-3533/PRO-3331) / 2000 items (PRO-3735)
Display	6.4 inch TFT color LCD
Fiber adapter	FC/PC SC/PC
Interface	USB(Principal and subordinate each),SD,RJ45
Battery	built-in rechargeable Li-ion battery (charging time <4 hours, working time >10 hours)
Power	AC/DC adapter (Input AC90-240V ±10%,Output DC18V)
Operating temperature	-10°C~40°C (14°F~104°F)
Storage temperature	-40°C~70°C (-40°F~158°F)
Relative humidity	<80%
Weight	<2.5Kg (<5.51 lbs)
Dimensions (mm)	248×201×75mm (9.76 x 7.91 x 2.95 in)

### **ORDERING INFORMATION**

Туре	wavelength (nm)	dynamic range (dB)	event dead zone (m)	attenuation dead zone (m)	Price
PRO-3331	1310±20/1550±20	33/31	<1.5m	<10m	\$5,080.00
PRO-3533	1310±20/1550±20	35/33	<1.5m	<10m	\$5,415.00
PRO-3735	1310±20/1550±20	37/35	<1.5m	<10m	\$6,265.00

### **Included Accessories**

OTDR, AC-DC power adapter/charger, FC adapter, SC adapter, Manual, USB cord, Carrying bag, Toolbox software CD, SD card (1gb)

iber optic.com

# **PR** OBL-201A / OFL-301A Optical Break / Fault Locator

The OBL-201A and OFL-301A are high performance optical fiber troubleshooters for locating fiber breaks and imperfections. It detects the break location in the optical fiber and displays the result on the LCD screen. This portable and easy to use device is an ideal instrument for fiber cable construction and maintenance.

### **Applications:**

- FTTx fiber certification
- CATV technicians (Field verification of fiber continuity)
- MDU installation (Verification of fiber continuity)
- Any application where affordable, "distance to break" testing is required

### **Features**

- Short dead zone 3m
- Backlight for easy operation in low light
- Rechargeable batteries
- Data transfer via USB interface
- Interchangeable (SC/ST/SC) connectors

### **SPECIFICATIONS**

Item / Model No.	OFL - 301A	OBL-201A
Fiber Type	9/125 µm Single Mode	
Wavelength	1550 ±	20 nm
Emitter Type	L	D
Connector Type	FC/SC/ST	FC/PC (interchangeable SC,ST)
Pulse Width		/ns/320ns/640ns/1280ns/2 s/24800ns (auto-switch)
Max. Output Power	100 mW	
Max. Measurement Range	130 Km	
Distance Accuracy	+/- (0.8 m + 0.0	01% x Distance)
Data Storage	999 Measurements	
Event Dead Zone	3	m
Power Supply	AC/DC adapter &. rec	hargeable batteries 4
Battery Life	15,000 times	measurement
Operating Temp.	14~122°F (-	10 ~ +50°C)
Storage Temp.	-4 ~ 140°F (	20 ~ +60°C)
Humidity	0 ~ 85% (non-condensing)	
<b>Communication Port</b>	Mini USB	
Weight	10 oz. (286 g)	
Dimension	7.5 x 4.1 x 2.1 in (190 x 105 x 55 mm)	



### OBL-201A:

Programed to find one fault at a time

OFL-301A: Programed to find multiple faults at a time

### **ORDERING INFORMATION**

OBL-201A	OBL - 201A	\$1,895.00
OFL-301A	OFL - 301A	\$3,225.00

### **Standard Accessories**

Rechargeable NiHM battery(4 pcs), AC adapter, PC software and USB cable, travel bag, test report, and manual.

### **OPTIONAL ACCESSORIES**

PRO-CT-001	Fiber Optic Cleaning Cassette	\$85.00
FRUCCIOUT	Tiber Optic Cleaning Casselle	<b>\$65.00</b>
PRO-CT-004	Cleaning Cassette Replacement Reel	\$25.00
VFL-5	650±10nm Pocket Visual Fault Locator	\$175.00
VFL-10	650nm Pocket Visual Fault Locator	\$250.00
PRO-CS-250	IBC Cleaner (2.5mm) Cleaning Tool	\$63.99
PRO-CS-125	IBC Cleaner (1.25mm) Cleaning Tool	\$63.99

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OTDRS

TEST EQUIPMENT

# Why Use a Launch Box?

What is a pulse Suppressor or Launch Box? A pulse suppressor or launch box is a length of either SM fiber or MM fiber coiled up in a case that is about 300m to 2.2Km in length. The whole length of the fiber is secured in a case and two patch cords usually extend from the case which are connected to the input and the output of the fiber. You may also hear the launch box being called a deadzone eliminator which is really a myth and it does not eliminate deadzones. If the Launch Box does not eliminate the deadzone then why is it used? Adding a length of fiber before the initial connection will not eliminate that connection or deadzone it simply moves it out the length of the fiber added. The pulse of light will still have to transit this connection and it will scatter high levels of light and the result will be a Fresnel Refection with its associated deadzone. The deadzone will not be eliminated or effectually shortened in anyway. If the pulse of light remains the same length, the deadzone will remain the same length with or without a pulse suppressor. The only effective way to shorten a deadzone is to shorten the light pulse. A launch box is used to really identify the quality of the first connector within a fiber span. Without the use of a launch cord there is no linear backscatter before the first connector and there is no way to accurately measure loss or reflectance values of that first connector. With the use of a launch box the technician can now place a cursor (A) in front of the first connector and place the (B) cursor just after the reflection in order to accurately measure the initial connector loss. The analysis software in the OTDR can now also identify the true reflectance and loss value because of the linear backscatter before the initial connector due to the addition of the launch box.



# What about the far end Connector?

Also, a launch box is sometimes used at the end of the fiber. A launch box is needed at the end of the fiber to verify the quality of the end connection. With a launch and receive cable the OTDR can now characterize both the front end and far end connections due to the addition of the fiber spools within the launch box. The backscattered signal can now be measured on both sides of the connectors allowing for loss and reflectance measurements of the near and far end.



The use of an OTDR is used to help identify all the characteristics of the fiber including splices, connectors and the quality of the fiber itself; however test fiber boxes are required to really test the quality of the front end and far end connectors.

### Advantages:

- Identifies quality of front end and far end connectors for loss and reflectance
- Improves EMD in Multimode fibers for more precise measurements
- Helps identify good launch levels from an OTDR using a good known lead in fiber.

**Note:** For the most accurate results the test fiber being used should match the fiber being tested such as type, core size and connector type. The length of the test boxes should be longer than the pulse width and needs to be long enough to show linear backscatter before the connectors.

# LAUNCH BOX

# **PR** Launch Boxes

Used in conjunction with PRO Optical Time Domain Reflectometer (OTDR). Fiber optic pulse suppressors eliminate dead zones. Dead zones occur after a reflective event. The first reflective event where the OTDR plugs into the bulk head , will have a 2 – 5 meter dead zone. Making it impossible to measure loss 2 – 5 meters beyond the event. The use of a pulse suppressor will move the dead zone away from crucial connections and splice points. Providing your trace with accurate test results in areas where loss must be calculated. Having a second pulse suppressor at the end of the cable under test will enable the OTDR to compare back scatter levels before and after the last reflective event.

### Testing & Troubleshooting:

Plug side A of the pulse suppressor directly into the OTDR, and side B into the cable under test. This will eliminate dead zones for your first connection point. Plug pulse suppressor #2 into the end of cable under test as a landing point. This gives you the ability to see loss on both sides of the last reflective event.

### **Optional: "Test Box"**

As an optional feature, you can request optical events be added to your pulse suppressor to create a "test box" which is used to verify the accuracy of your OTDR. (e.g. A test box measurement which matches the reference documentation supplied means your OTDR is still calibrated) Recommended length is 1KM+ to ensure accuracy over distance.

Madal Number

### Features:

- Rugged weatherproof case
- 2 meter lead cables
- Corning fiber optic cable
- "Test Box" options
- Fusion splice
- Macro bend
- Attenuator

**TEST EQUIPMENT** Launch Boxes

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Model Number	Description	Price
LB-M-100-XX-YY	100 meter Multimode (62.5/125)	\$539.00
LB-M-300-XX-YY	300 meter Multimode (62.5/125)	\$559.00
LB-N-100-XX-YY	100 meter Multimode (50/125)	\$539.00
LB-N-300-XX-YY	300 meter Multimode (50/125)	\$557.00
LB-S-1KM-XX-YY	1000 meter Singlemode (9/125)	\$599.00
LB-S-500-XX-YY	500 meter Singlemode (9/125)	\$579.00
LB-S-300-XX-YY	300 meter Singlemode (9/125)	\$559.00

Description

Replace the XX and YY from the specifications table (above) with the connector style of your choosing. The XX represents the first connector within your Pulse Suppressor and the YY represents the second connector.

Connector Style	SC (UPC / APC)	ST (UPC)	FC (UPC / APC)	LC (UPC / APC)
XX	CU/CA	TU	FU / FA	LU / LA
YY	CU/CA	TU	FU / FA	LU / LA

*Custom configurations also available. Call for more options.* 

# **EXFO** ETHERNET TESTERS

# **AXS-200/850** Ethernet Test Set

Part of EXFO's wide-ranging Ethernet test offering, the AXS-200/850 Ethernet Test Set delivers comprehensive test functionalities without the typical complexity associated with Ethernet/IP testing. Whether for installing, turning up or maintaining Ethernet and IP services, the AXS-200/850 is ready to perform. Thanks to a feature set that includes bidirectional RFC 2544, traffic generation and monitoring, multistream background traffic, BERT, as well as IP connectivity tools such as ping and traceroute, this lightweight, handheld unit provides front-line technicians with all the tools they need to get through their test cycles quickly and efficiently.

### AXS-850-XX-XX

Models	
AXS-850 = Ethernet 10/100 Base	
AXS-850-1 = Ethernet 10/100/10	000 electrical and GigE optical

Example: AXS-850-100optical-Cable test

Note

a. Includes GigE electrical and GigE optical; available only with AXS-850-1.

-•	Opti	ons	

00 = Without options 100optical = Enable support for 100M optical interface GigE = Enable support for 1000Base-T and GigE optical a Cable\_test = Cable test TRAFFIC GEN = Traffic generation and monitoring test MULTI\_STREAM = Multiple streams IPV6 = Internet protocol version 6



### **BIDIRECTIONAL SFP UPGRADES**

FTB-8596	SFP modules Bidir 1490TX 1310RX 1000BASE-BX10	\$364.00
FTB-8597	SFP modules Bidir 1310TX 1490RX 1000BASE-BX10	\$280.00
FTB-8598	SFP modules Bidir 1310TX 1490/1550RX 1000BASE-BX	\$380.00
FTB-8599	SFP modules Bidir 1550TX 1310RX 1000BASE-BX	\$396.00

### \*Call For Configurations\*

### **SFP UPGRADES**

FTB-8590	SFP modules GigE/FC/2FC at 850 nm, MM, < 500 m	\$100.00
FTB-8591	SFP modules GigE/FC/2FC at 1310 nm, 10 km	\$260.00
FTB-8592	SFP modules GigE/FC/2FC at 1550 nm, 90 km	\$780.00
FTB-85910	SFP modules 100Base-FX, 1340 nm, MM, 2 km	\$95.00
FTB-85911	SFP modules 100Base-LX10, 1310 nm, SM, 15 km	\$210.00

### TESTING

RFC 2544	Throughput, back-to-back, frame loss and latency measurements according to RFC 2544. Frame size: RFC-defined sizes, user-configurable between 1-7 sizes.
Traffic generation and monitoring	Capability to generate traffic and monitor Ethernet and IP networks. Capability to perform traffic shaping with the following statistics: throughput, frame loss, sequencing, packet jitter, latency, frame size, traffic type and flow control
Multistream background traffic	Capability to transmit and monitor up to three additional streams over Ethernet and IP networks. Configurable per-stream analysis; capability to set packet size, MAC source/destination address, VLAN ID, VLAN priority, IP source/destination address, ToS field, DSCP field, TTL, UDP source/destination port and payload.
BERT	Up to layer 4 supported with or without VLAN Q-in-Q.
Patterns (BERT)	PRBS 2E9-1, PRBS 2E11-1, PRBS 2E15-1, PRBS 2E20-1, PRBS 2E23-1, PRBS 2E31-1 and one user pattern. Capability to invert patterns.
Bit error insertion	1-50
Error measurement	Jabber/giant, runt, undersize, oversize, FCS, symbol, alignment, collision, late collision, excessive collision.
Error measurement (BERT)	Bit error, bit mismatch 0, bit mismatch 1.
Alarm detection	LOS, link down, pattern loss, frequency.
VLAN stacking	Capability to generate streams with up to two layers of VLAN (including IEEE 802.1ad Q-in-Q tagged VLAN) traffic by VLAN ID or VLAN priority at any of the stacked VLAN layers.
Cable testing	Category 5 cable (or better), 100 $\Omega$ UTP/STP cable, $\leq$ 120 meters
Service disruption time (SDT) measurement	Includes statistics such as longest, shortest, last, average, count, total and pass/fail thresholds.
IPv6 testing	Includes BERT, RFC 2544, traffic generation and monitoring, background streams, Smart Loopback, remote loopback, ping and traceroute.

### AXS-200/855

### Part of the SharpTESTER Access Line

Whether for mobile backhaul, TDM/ISDN or Ethernet commercial services testing, the AXS-200/855 streamlines processes and seamlessly transitions from E1/DS1, DS3 or PRI circuits, to a full suite of Ethernet performance test functionalities without swapping modules or test units—using a single preloaded software package.

### FTB-8510B and FTB8510G Packet Blazer 1 and 10 Gigabit Ethernet Test Modules

Housed in the FTB-400 and FTB-200 platforms, the FTB-8510B and FTB-8510G modules test Ethernet connectivity in its native format: 10/100/1000Base-T, 1000Base-SX, 1000Base-LX, 1000Base-ZX, 10GBASE-xR or 10GBASE-xW. They can also be used to test next-generation SONET/SDH, hybrid multiplexers, dark fiber or xWDM networks running 1 and 10 Gigabit Ethernet interfaces.

### FTB-8120NGE and FTB-8130NGE Power Blazer Next-Generation Multiservice Test Modules

Housed in the FTB-200 platform, the FTB-8120NGE (2.5/2.7 Gbit/s) and FTB-8130NGE (10/10.7 Gbit/s) Power Blazer test modules specifically address field commissioning and maintenance requirements, providing SONET/SDH and Ethernet test functions in the industry's smallest and most efficient form factor and setting a new standard for multiservice field testing. ber (optic.co)

# JDSU ETHERNET TESTERS

# **10M-1G ETHERNET TESTER** SmartClass<sup>™</sup> Ethernet

The SmartClass Ethernet provides an economical 1G Ethernet test set with optical and electrical interfaces that is an easy-to-use, entry-level Ethernet/IP tester for front-line technicians who support Metro Ethernet networks. The compact, rugged, and battery-operated SmartClass is ideal for technicians turning on Ethernet and Internet Protocol (IP) services in the field.

### Key Features:

• Generates and measures L2/L3 traffic on up to 1G electrical or optical Ethernet interfaces with VLAN, Q-inQ tags, or Multiple Streams and Multi-Protocol Label Switching (MPLS) labels

- RFC2544 proves acceptance for Ethernet service level agreements
- MPLS Test checks for correct policing and prioritization in MPLS domains using the MPLS option
- Physical Layer tests verify integrity of the physical layer to pass traffic before testing throughput
- Ethernet Loopback completes the JDSU Ethernet field test portfolio



### SmartClass Pricing and Configuration

CSC-ETHLP-P2	SmartClass Loopback Optical Configuration, SmartClass Ethernet handheld unit optioned for loopback on 10/100/1000Mbps Electri- cal and 1000Mbps Optical interfaces. Includes power charger, USB cable, RJ45 Ethernet cable, AA batteries, One Expert(TM) Handheld Manager software for easy result management, soft carry case. No SFPs or optical cables included in this configuration. To get those accessories, add the appropriate accessories or purchase the CSC-ETHLP-P3 package.	\$2,825.55
CSC-ETHLP-P3	SmartClass Loopback Complete Configuration, SmartClass Ethernet handheld unit optioned for loopback on 10/100/1000Mbps Electrical and 1000Mbps Optical interfaces. Includes one 850nm SFP, one 1310nm SFP, fiber patch cables, power charger, USB cable, RJ45 Ethernet cable, AA batteries, One Expert(TM) Handheld Manager software for easy result management, soft carry case. Note this package contains all optical cables that would be considered necessary to properly use the optical option. Additional SFP's and cables available for purchase if needed.	\$3,298.05
CSC-ETHTR-P1	SmartClass Ethernet Electrical Configuration, SmartClass Ethernet handheld unit optioned for traffic production on 10/100/1000Mbps electrical interfaces. Includes power charger, USB cable, RJ45 Ethernet cable, AA batteries, 'One Expert(TM) Handheld Manager' software for easy result management, soft carry case.	\$3,298.05
CSC-ETHTR-P2	SmartClass Ethernet Optical Configuration, SmartClass Ethernet handheld unit optioned for traffic production on 10/100/1000Mbps Elec- trical and 1000Mbps Optical interfaces. Includes power charger, USB cable, RJ45 Ethernet cable, AA batteries, 'One Expert(TM) Handheld Manager' software for easy result management, soft carry case. No SFPs or optical cables included in this configuration. To get those accessories, add the appropriate accessories or purchase the CSC-ETHTR-P3 package	\$4,710.83
CSC-ETHTR-P3	SmartClass Ethernet Complete Package, SmartClass Ethernet handheld unit optioned for traffic production on 10/100/1000Mbps Electri- cal and 1000Mbps Optical interfaces. Includes one 850nm SFP, one 1310nm SFP, fiber patch cables, power charger, USB cable, RJ45 Ethernet cable, AA batteries, One Expert(TM) Handheld Manager software for easy result management, soft carry case. Note this package contains all optical cables that would be considered necessary to properly use the optical option. Additional SFPs and optical cables avail- able for purchase if needed.	\$5,183.33
CSC-MPLS	CSC-MPLS	\$462.00
CSC-MPLS-U1	Software Option to support MPLS in the SmartClass Ethernet. This option enables the MPLS software in the SmartClass Ethernet product on units out in the field. For an option included in SmartClass products shipped from the factory, please use part CSC-MPLS. For this upgrade the SmartClass Ethernet ID# is required. To get this ID, from the main menu select System Settings then select Version Info(#2) and read the SCE ID Number. This option can only be enabled on Units with Software version 3 and above.	\$462.00
CSC-MSTR	FACTORY INSTALLED Software Option to support Multiple Streams traffic generation in the SmartClass Ethernet. This option enables the Multiple Streams option in the SmartClass Ethernet product on units shipped from the factory. For a field upgrade, please use part CSC-MSTR-U1 as this part does not support field upgrades	\$546.00
CSC-MSTR-U1	Software Option to support Multiple Streams in the SmartClass Ethernet. This option enables the Multiple Streams option in the SmartClass Ethernet product on units out in the field. CSC-MSTR-U1 part is only for field upgrades. For an option included in SmartClass products shipped from the factory, please use part CSC-MSTR. For this upgrade the SmartClass Ethernet ID# is required. To get this ID, from the main menu select System Settings then select Version Info(#2) and read the SCE ID Number. This option can only be enabled on Units with Software version 3 and above.	\$546.00
CSC-OPT-U1	User installable software option enabling the optical interface in traffic transmitting enabled SmartClass Ethernet. For this upgrade the SmartClass Ethernet ID# is required. To get this ID, from the main menu select System Settings (#5) then select Version Info(#2) and read the SCE ID Number.	\$1,255.80

### Accessories

CSC-OPT	Optical Option	CSC-MSTR-U1	Multiple Streams Field Upgrade	AC-SFP-CWDM-2	1491 nm CWDM SFP
CSC-TRF	Traffic Option	AC-SFP-1000LX	1000LX SFP	AC-SFP-CWDM-3	1511 nm CWDM SFP
CSC-MPLS	MPLS Option	AC-SFP-1000SX	1000SX SFP	AC-SFP-CWDM-4	1531 nm CWDM SFP
CSC-MPLS-U1	MPLS Field Upgrade	AC-SFP-1000ZX	1000ZX SFP	AC-SFP-CWDM-5	1551 nm CWDM SFP
CSC-ASY	Asy-RFC2544 Option	AC-SFP-1000BX1	1310 nm TX, 1490 nm RX, Single mode SFP	AC-SFP-CWDM-6	1571 nm CWDM SFP
CSC-ASY-U1	Multiple Streams Option	AC-SFP-1000BX2	1490 nm TX, 1310 nm RX, Single mode SFP	AC-SFP-CWDM-7	1591 nm CWDM SFP
CSC-MSTR	Multiple Streams Option	AC-SFP-CWDM-1	1471 nm CWDM SFP	AC-SFP-CWDM-8	1611 nm CWDM SFP + assorted cables

# JDSU ETHERNET TESTERS

# **HST-3000** Handheld Service Tester

### **Features**

- 3.8" diagonal, 1/4 VGA, Color Active Matrix display.
- Simplified user interface to facilitate ease-of-use and minimize technicians learning curve.
- Handheld, rugged and portable. Lightweight (1.3kg/2.7lb).
- Weather resistant. Ideal for field use.
- Battery operated (up to 10 hours). Swappable battery pack.
- RS-232, USB and Ethernet connectivity.
- PC replacement including file transfer, 8MB of storage, VT100 emulation, printing and internet browser.
- Built-in microphone and speaker. Headset connection.

### Highlights

- Support for Electrical and Optical Ethernet testing in a single module.
- IPv6 option to enable installation and troubleshooting of IPv6 networks.
- Modular hardware and software architecture is flexible and easily upgraded in the field.
- Supports Triple Play and FTTX testing, as well as TDM network testing.
- Future-proof solution for circuit-switch to packet-switch migration.
- Fully configurable buy only what you need now, easily upgrade as needs change.
- Rugged, hand-held platform ideal for field use.

### Applications

- Ability to perform traffic generation up to interface line rate and support automated RFC2544 at Layers 2 to 4 (Eth/IP/TCP/UDP).
- Ability to generate and analyze traffic with various encapsulation schemes such as VLAN, VLAN Stacking (Q-in-Q), and MPLS.
- PPPoE protocol support for emulation of data traffic in the last mile.
- FTTX and Triple Play testing Advanced tests for the installation and maintenance of DSL and PON-based Triple Play IP voice, video, and data services.
- xDSL testing verify the circuit and service with modem emulation and replacement for ADSL, ADSL2, ADSL2+, G.SHDSL, and VDSL2.
- Complete copper testing including DVOM, TDR, wideband TIMS, spectral noise, and resistive fault locator (RFL).
- GigE and 10/100 Ethernet Generate traffic and troubleshoot Ethernet links, both optical and electrical, for point to point or routed networks.
- North American 'Special Services' Turn-up and troubleshooting for North American business-class data services: Ethernet, T1, DS3, PCM TIMS, PCM
- Signaling, DDS-LL, Frame Relay, ISDN PRI, ISDN BRI, and Datacom.
- Global Business Services Turn-up and troubleshooting for global business-class data services: Ethernet, E1, ISDN BRA, G.SHDSL, and Datacom.
- TechComplete Improve xDSL processes through automation and centralized, web-based management tools.

### **HST Pricing and Configuration**

HST-PKG2	HST-3000 base unit with copper test capability, Combination copper (dual tip/ring and ground connectors) and ADSL/2/2+ Annex A ATU-R modem module, Advanced IP test functionality, FTP and Web browsing, DVOM functionality, TDR functionality, RJ-45 to clip lead cable to outside plant ADSL/2/2+ testing, Tip/ring/ground copper lineman cable set, Base unit manual, CD test and troubleshooting manuals, Carrying case	\$4,400.00
НЅТ-РКGЗ	HST-3000 base unit with copper test capability, Combination copper (dual tip/ring and ground connectors), Advanced IP test functionality, FTP and Web browsing, TDR functionality, Tip/ring/ground copper lineman cable set, Base unit manual, CD test and troubleshooting manuals, Carrying case	\$3,850.00
HST-PKG6	HST 3000 platform without copper test capability, Dual port T1 testing module, PCM TIMS test option, PCM signaling test option, ISDN PRI option, VT-100 emulation feature, Pulse Shape software, Cable kit for DS1 testing, Base unit manual, CD manuals for test application, Carrying case	\$5,450.00
HST-PKG8	HST-3000 base unit without copper test capability, Combo dual port T1 and DS3 testing module, PCM TIMS test option, PCM signaling test option, ISDN PRI option, Cable kit for T1/DS1 testing, Cable kit for DS3 testing, VT-100 emulation feature, Pulse Shape software, Base unit manual, CD manuals for test application, Carrying case	\$6,500.00
HST-PKG9	HST-3000 base unit with copper test capability, Combination Dual port T1 testing and copper testing module, DVOM, TDR, PCM TIMS test option, PCM signaling test option, ISDN PRI option, VT-100 emulation feature, Pulse Shape software, Cable kit for DS1 testing, Tip/ring cable set with ground lineman cable set, Base unit manual, CD manuals for test applications, Carrying case	\$6,800.00



JDSU

TEST EQUIPMENT

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Introducing EXFO's FiberBasix testers, a series of handheld instruments designed to meet your basic day-to-day test requirements while helping you stay within budget. These worry-free, straightforward solutions provide the tools you need to accurately measure signal attenuation during fiber-optic cable installation.

## EXFO FiberBasix 50 TEST KITS

Pocket-sized Optical Test Kits

FiberBasix 50 Handheld Testers deliver simple, accurate measurement of signal attenuation during fiber-optic cable installation. Buy the ELS-50 Light Source or EPM-50 Power Meter individually, or choose from five test kits designed for specific users/testing needs: LAN, outside plant, contractors, FTTH and CATV.

### An FTTx Test Solution

These products are part of EXFO's series of FTTx optical test products. They allow for the testing of passive optical networks (PONs) at the three main wavelengths (1310, 1490 and 1550 nm) used in fiber-to-the-home (FTTH) and fiber-to-the-premises (FTTP) networks and comply with the ITU-T G.983 and G.984 Recommendation series and the IEEE 802.3ah standard.



### **ORDERING INFORMATION**

### FBK-54

FiberBasix 50 FTTH Test Kit Kit Includes: Including: FPM-53X-RB-PMA-22 FiberBasix Power Meter with High-Power InGaAs detector and rubber boot - Universal 2.5mm slip grip interface - PMA-22 FC Connector adapter FIS-50-

235BL-RB-LSA-89 FiberBasix Optical Source 1310/1490/1550 nm laser (9/125im) with rubber boot - LSA-89 FC Connector adapter Extra power meter adapters: - 1x PMA-54 SC connector adapter - 1> PMA-32 ST connector adapter Extra light source adapters: - 1x LSA-91 SC connector adapter - 1x LSA-90 ST connector adapter Carrying case GP-10-061, Six AA batteries, Two soft pouches - Quick Reference Card - Calibration & Compliance Certificates

### FBK-52

### FiberBasix 50 Outside Plant Test Kit

\$1,365.00

\$1,755.00

Kit Includes: Including: EPM-53-RB-PMA-22 FiberBasix Power Meter with InGaAs detector and rubber boot - Universal 2,5mm slip grip interface - PMA-22 FC Connector adapter ELS-50-23BL-RB-LSA-89 FiberBasix Optical Source 1310/1550 nm laser (9/125im) with rubber boot - LSA-89 FC Connector adapter Extra power meter adapters: - 1x PMA-54 SC connector adapter - 1x PMA-32 ST connector adapter Extra light source adapters: - 1x LSA-91 SC connector adapter - 1x LSA-90 ST connector adapter Carrying case GP-10-061, Six AA batteries, Two soft pouches - Quick Reference Card Calibration & Compliance Certificates

### FBK-53

Power Meters & Light Sources

EST EOUIPMENT

### FiberBasix 50 Contractor Test Kit

\$1,645.00

Kit Includes: Including: EPM-53-RB-PMA-22 FiberBasix Power Meter with InGaAs detector and rubber boot - Universal 2,5mm slip grip interface - PMA-22 FC Connector adapter ELS-50-12C-RB-LSA-89 FiberBasix Optical Source 850/1300 nm LED source (50/125 im) with rubber boot - LSA-89 FC Connector adapter ELS-50-23BL-RB-LSA-89 FiberBasix Optical Source 1310/1550 nm laser (9/125 im) with rubber boot - LSA-89 FC Connector adapter Extra power meter adapters: - 1x PMA-54 SC connector adapter - 1x PMA-32 ST connector adapter Extra light source adapters: - 2x LSA-91 SC connector adapter - 2x LSA-90 ST connector adapter - Carrying case GP-10-061, Nine AA batteries, Three soft pouches - Quick Reference Cards - Calibration & Compliance Certificates

### FBK-55

### FiberBasix 50 CATV Test Kit

\$1,395.00

Kit Includes: Including: EPM-53X-RB-PMA-22 FiberBasix Power Meter with High-Power InGaAs detector and rubber boot - Universal 2,5mm slip grip interface - PMA-22 FC Connector adapter ELS-50-23BL-RB-LSA-89 FiberBasix Optical Source 1310/1550 nm laser (9/125im) with rubber boot - LSA-89 FC Connector adapter Extra power meter adapters: - 1x PMA-54 SC connector adapter - 1x PMA-32 ST connector adapter Extra light source adapters: - 1x LSA-91 SC connector adapter - 1x LSA-90 ST connector adapter Carrying case GP-10-061, Six AA batteries, Two soft pouches - Quick Reference Card - Calibration & Compliance Certificates

## EXFO FPM-600 POWER METER

### FTTx Test Solution

The FPM-600 Power Meters are the ideal tool for link and system qualification. Thanks to its memory capacity of 1000 data items and converter software, it facilitates data management and enables data transfer to a PC via USB connection. The FPM-600 features a green/red LED indicator that gives you a pass or fail test verdict according to the thresholds you have defined.



### **ORDERING INFORMATION**

FPM-602-XX	EXFO FPM-600 Power Meter (GE Detector)	\$1,260.00
FPM-602X-XX	High-power Ge detector	\$800.00

### **EXFO** FLS-600 LIGHT SOURCE

### Automatic Wavelength Switching

The FLS-600 Light Source are designed for first-class versatility. Choose among laser, LED models, as well as various wavelength options. What's more, you can save time by building a list of your "favorite" wavelengths and only sweeping through these wavelengths when testing.

### **ORDERING INFORMATION**

FLS-600-23BL	1310/1550 nm laser source (9/125 μm)	\$1,810.00
FLS-600-12D23BL	850/1300 nm LED source (62.5/125 μm)	\$2,250.00

# **EXFO FOT-930 POWER METER**

Designed for network service providers, network installers and CATV operators, the FOT-930 MaxTester provides fully automated loss test results in 10 seconds for up to three wavelengths, as well as automatic ORL and fiber-length measurement. It combines a powerful light source, a power meter, a visual fault locator, a full-duplex digital talk set and a video fiber inspection probe, and it comes with a large, high-resolution color display and nine hours autonomy—all this and more in an ergonomic, eye-catching handheld package built for today's fiber-optic testing requirements.

This unit easily and efficiently provides complete, high-quality test documentation. Its data logging and management features help users quickly access and download test results to any PC through the RS-232 port for in-depth analysis and first-class report generation.

The FOT-930 MaxTester delivers fast, three-wavelength loss and ORL results based on user-configurable pass/fail thresholds, for error-free testing. It is the only unit of its kind designed for testing both multimode and single-mode fiber. What's more, it comes with a GeX detector, for high-power measurement up to +26 dBm.

### **Optimized for Testing Passive Optical Networks**

This mode lets you configure your FOT-930 MaxTester to suit your FTTx wavelengths and test-unit locations, as well as choose your preferred data presentation options for on-screen display or report generation. Benefits include the display of test data according to FTTx terminology, as well as similar test-data presentation, regardless of the location of main and remote units.

### Features

- FasTest and ORL function
- Fiber Inspection Probe connection
  2 rechargeable batteries (GP-1001) & AC adapter/charger
- Soft carrying case (GP-10-061)
- Soft carrying case (GP-10-061)
  USB to serial converter; USB to DB9 male (GP-2004)
- Calibration mandrel
- Instruction manual and Certificate of Compliance
- Test report
- Shoulder strap
- Connector adapter EUI-XX
- Connector adapter FOA-XX

### SPECIFICATIONS

	FOT-932	FOT-932X	FOT-933
Detector type	Ge	Gex	InGaAs
Measurement range (dBm)	10 to -70	26 to -55	6 to -73
Wavelength (nm)	800 to 1650	800 to 1650	800 to 1650
Measurement-distance units	kilometers, meters, kilofeet, feet, miles		

### **Options**

VFL	650 nm Visual Fault Locator with universal 2.5 mm adapter	\$475.00
VFT	650 nm Visual fault locator and talk set, 1550 nm Laser (9/125 µm) with headset (GP-1002). Option NOT possible if already 5 wavelengths present on FOT-930.	\$2,965.00
FP4S	FIP-400-P-SINGLE: 400X Video Probe. Comes w/ FIPT-400-FC-SC: FC-SC Bulkhead tip, FIPT-400-U25M: Univ. patchcord tip (2.5mm ferrule), Compartmented plastic case for tips, Software & Instruction manual on CD.	\$1,225.00
FP4D	FIP-400-P-DUAL: 200X/400X Video Probe. Comes w/ FIPT-400-FC-SC: FC-SC Bulkhead tip, FIPT-400-U25M: Univ. patchcord tip (2.5mm ferrule), Compartmented plastic case for tips, Software & Instruction manual on CD.	\$1,595.00

### **ORDERING INFORMATION**

FOT-932-XX	Ge detector, Dual lambda 1310/1550 nm laser (9/125 μm)	\$6,870.00
FOT-932X-12C-XX	Ge detector, Four lambda - 1st FasTest Port: 1310/1550 nm laser (9/125 μm), - 2nd FasTest Port: 850/1300 nm LED (50/125 μm)	\$9,545.00
FOT-932X-12D-XX	Ge detector, Four lambda - 1st FasTest Port: 1310/1550 nm laser (9/125 µm), - 2nd FasTest Port: 850/1300 nm LED (62.5/125 µm)	\$9,595.00
FOT-932-5-XX	Ge detector, Tri-lambda 1310/1490/1550 nm laser (9/125 µm)	\$8,410.00
FOT-932X	High-power Ge detector, Dual lambda 1310/1550 nm laser (9/125 μm)	\$6,920.00

FOT-932X-12C	High-power Ge detector, Four lambda - 1st FasTest Port: 1310/1550 nm laser (9/125 μm), - 2nd FasTest Port: 850/1300 nm LED (50/125 μm)	\$9,545.00
FOT-932X-4	High-power Ge detector, Tri-lambda 1310/1550/1625 nm laser (9/125 μm)	\$9,055.00
FOT-932X-5-XX	High-power Ge detector, Tri-lambda 1310/1490/1550 nm laser (9/125 μm)	\$8,460.00
FOT-933	InGaAs detector, Dual lambda 1310/1550 nm laser (9/125 μm)	\$6,975.00
FOT-933-4	InGaAs detector, Tri-lambda 1310/1550/1625 nm laser (9/125 μm)	\$9,115.00
FOT-933-5	InGaAs detector, Tri-lambda 1310/1490/1550 nm laser (9/125 μm)	\$8,510.00

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# **AFL/NOYES** POWER METERS & LIGHT SOURCES

### **NOYES MLP SERIES OPTICAL LOSS KITS**

### **MLP1 Fiber Optic Loss Test Kits**

Basic Multimode Test Kit

The MLP1 test kits are inexpensive solutions for testing multimode and single-mode systems. By joining the OPM1 optical power meter and the OLS1 optical light source, the MLP1 is a great kit for beginners or network owners. Two versions of the MLP1 test kit are available for testing Premises networks, LAN, and Gigabit Ethernet. The MLP1-1S test kit includes the OPM1-2C power meter and OLS1-1C light source. The MLP1-2 test kit combines the OPM1-2C optical power meter and OLS1-2C optical light source

Test Kit Model	MLP 1-1S		MLP 1-2	
<b>Optical Light Source</b>	OLS 1-1C		OLS 1-2C	
Wavelength (nm)	660 - red	850 + 35/-40	850 + 35/-40	1300 + 50/-10
Emitter type	Class 1 (IEC 60825 - 1)			
Connector	ST			
<b>Optical Power Meter</b>	ОРМ 1-2С			
Power Range	+6 to -60 dBm			
Detector	Ge			

### **ORDERING INFORMATION**

MLP1-1S	MLP1-1S Test Kit, ST connector	\$799.00
MLP1-2	MLP1-2 Test Kit, ST connector	\$995.00

Test jumpers and connector adapters are required for operation (purchased separately).

### MLP4-2 Multimode Test Kit Multimode Kit with Wave ID and Set Reference

The MLP4-2 test kit offers accurate fiber optic testing at an affordable price. Combining the OPM4-2D optical power meter and the OLS1-Dual LED light source in a rugged carry case, the MLP4-2 is a complete test kit for fiber optic LANs and WANs.

Test Kit Model	MLP	94-2
<b>Optical Light Source</b>	OLS 1-Dual (single port)	
Wavelength (nm)	850 ±30	1300 +50/-10
Emitter type	Class 1 (IEC 60825 - 1)	
Connector	SC (FC & ST available)	
<b>Optical Power Meter</b>	OPM 4-2D	
Power Range	+6 to -50 dBm / +6 to -45 dBm for 850 nm	
Detector	Ge	

### **ORDERING INFORMATION**

MLP4-2 *MLP4-2 Test Kit* (-**XX** = *SC, FC, ST connector*) **\$1,195.00** 

Test jumpers and connector adapters are required for operation (purchased separately)

## MLP5-2 Multimode Test Kit Wave ID, Set Reference, and Data Storage

The MLP 5-2 test kit raises field testing to new standards by combining our popular OPM 5-2D optical power meter, and the OLS 1-Dual LED light source in a rugged carrying case. Used during installations, the MLP 5-2 performs insertion loss measurements on multimode fiber at 850 and 1300 nm, as well as measurements on single-mode fiber at 1300 nm.

Test Kit Model	MLP 5-2		
<b>Optical Light Source</b>	OLS 1-Dual (single port)		
Wavelength (nm)	850 ±30 1300 +50/-10		
Emitter type	Class 1 (IEC 60825 - 1)		
Connector	SC (FC & ST available		
<b>Optical Power Meter</b>	OPM 5-2D		
Power Range	+6 to -60 dBm		
Detector	Ge		
Data Storage (Items)	Up to 500 per wavelength		

### **ORDERING INFORMATION**

MLP5-2 MLP5-2 Test Kit (-XX = SC, FC, ST connector) \$1,595.00

Test jumpers and connector adapters are required for operation (purchased separately).



**MLP1 Kit includes:** OLS1 optical light source, OPM1-2C optical power meter, protective rubber boots, adapter cap, 50 and 62.5µm mandrels, user's guide, and carrying case.



**MLP4-2 Kit includes:** OLS1-Dual optical light source, OPM4-2D optical power meter, AA batteries, protective rubber boots, adapter cap, 50 and 62.5 µm mandrels, user's guide, and carry case



**MLP5-2 Kit includes:** OLS1-Dual optical light source, OPM5-2D optical power meter, AA batteries, protective rubber boots, adapter cap, USB cable, Windows® compatible software and user's guide, 50 and 62.5  $\mu$ m mandrels, user's guide, and carry case.

Test Kits

TEST EQUIPMENT

# **AFL/NOYES** POWER METERS & LIGHT SOURCES

### **NOYES CONTRACTOR SERIES TEST KITS**

### **CKM-2** Fiber Optic Loss Test Kits

### Multimode Test Kit with Set Reference

Combining the CSM1-2 optical power meter and CSS1-MM Dual LED light source, the CMK-2 is a cost-effective test kit designed for performing insertion loss measurements on multimode fiber optic links.

Weighing only 0.4 lb each, both units are compact and convenient for field use. The CSS1-MM Dual LED light source, and CSM1-2 optical power meter are fully N.I.S.T. traceable.

### **Features**

- Palm-sized, rugged, lightweight
- Certify multimode fiber links per TIA/EIA standards
- CW and modulated Tone
- 270, 330, 1000, and 2000 Hz supported Tone
- Power measurements in dBm or  $\mu$ W; insertion loss in dB
- Reference power level storage
- Large LCD with Backlight
- Free 50 µm and 62.5 µm mandrels
- N.I.S.T traceable

Test Kit Model	CKM-2		
<b>Optical Light Source</b>	CSS1-MM (single port)		
Wavelength (nm)	850 nm ±20 nm 1300 nm +40/-60 nm		
Emitter type	Class 1 (IEC 60825 - 1)		
Connector	SC		
<b>Optical Power Meter</b>	CSM1-2		
Power Range	+6 to -60 dBm		
Detector	Germanium (Ge)		
Data Storage (Items)	N/A		

### **CKSM-2** Fiber Optic Loss Test Kits

### Multimode & Single-mode Test Kit with Set Reference

Combining the CSM1-2 optical power meter, CSS1-MM Dual LED light source, and CSS1-SM Dual LASER source, the CKSM-2 is a cost-effective test kit designed for performing insertion loss measurements on multimode as well as single-mode fiber optic links.

### **Features**

- Palm-sized, rugged, lightweight
- Certify multimode fiber links per TIA/EIA standards
- CW and modulated Tone
- 270, 330, 1000, and 2000 Hz supported Tone
- Power measurements in dBm or  $\mu$ W; insertion loss in dB
- Reference power level storage
- Large LCD with Backlight
- Free 50 µm and 62.5 µm mandrels
- N.I.S.T traceable

<b>Optical Light Source</b>	CSS1-MM (single port)		
Wavelength (nm)	850 nm ±20 nm	1300 nm +40/-60 nm	
Emitter type	Class 1 (IEC	60825 - 1)	
Connector	S	C	
<b>Optical Light Source</b>	CSS1-SM (single port)		
Wavelength (nm)	1310 nm ±20 nm, 1550 nm ±20 nm		
Emitter type	Class 1 (FDA 21 CFR 1040.10 and 1040.11, and IEC 60825-1)		
Connector	UCI base and FC, SC, ST, or LC adapter		
<b>Optical Power Meter</b>	CSS1-2		
Power Range	+6 to -60 dBm		
Detector type	Germanium (Ge)		
Data Storage (Items)	N/A		



### Kit includes:

CSS1-MM dual optical light source, CSM1-2 optical power meter, AA batteries, 2.5 mm Universal adapter cap, 50 and 62.5  $\mu m$  mandrels, user's guide, and carry case.

Test jumpers and connector adapters are required for operation (purchased separately).

### **ORDERING INFORMATION**

CKM-2	CKM-2 Test Kit	\$879.00



### Kit includes:

CSS1-MM Dual LED source, CSS1-SM Dual Laser source, CSM1-2 optical power meter, AA batteries, 2.5 mm universal adapter cap, UCI-SC connector, 50 and 62.5  $\mu$ m mandrels, user's guide, and carry case.

Test jumpers and connector adapters are required for operation (purchased separately).

### **ORDERING INFORMATION**

CKSM-2 CKSM-2 Test Kit	
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\$1,649.00

# **AFL/NOYES** POWER METERS & LIGHT SOURCES

# **NOYES** SMLP SERIES OPTICAL LOSS KITS

### SMLP4-4 Test Kit

### Single-mode / Multimode Test Kit with Wave ID and Set Reference

The SMLP4-4 test kit combines the OPM4-2D optical power meter and OLS4 integrated LED and LASER light source and is ideally suited for testing fiber optic networks with hybrid (single-mode and multimode) cables.

### Features

- Certify multimode and single-mode links per TIA/EIA standards
- Wave ID automatic wavelength identifi cation and switching
- Dual Wave ID, single Wave ID, CW, and modulated Tone
- 270 Hz, 330 Hz, 1 kHz, and 2 kHz Tone
- Large LCD with Backlight
- Power measurements in dBm or  $\mu$ W; insertion loss in dB
- Free 50 µm and 62.5 µm mandrels
- N.I.S.T traceable

Test Kit Model	SMLP4-4			
<b>Optical Light Source</b>	OLS4			
Optical	MM	Optical Port	SM Op	otical Port
Wavelength (nm)	850 ± 30 1300 -10/+50		1310 ± 20	1550 ± 20
Emitter type	LED, Class 1 (IEC 60825 - 1)		Laser, Class 1 (FDA 21 CFR 1040.10 and 1040.11, and IEC 60825-1)	
Connector	SC (FC, ST, or LC available) SC (FC, ST, or LC		or LC available)	
<b>Optical Power Meter</b>	OPM4-2D			
Power Range	+6 to -60 dBm			
Detector	Germanium (Ge)			
Data Storage (Items)			N/A	



### Package includes:

OLS4 optical light source, OPM4-2D optical power meter, AA batteries, protective rubber boots, adapter cap, 50 and 62.5  $\mu m$  mandrels, user's guide, and carry case.

Test jumpers and connector adapters are required for operation (purchased separately).

### **ORDERING INFORMATION**

SMLP4-4-XX	SM/MM Test Kit w/ Wave ID & Set Reference	\$2,595.00
	(-XX = ST, FC, SC Connector)	

### SMLP5-5 Test Kit

### SMLP5-5 Single-Mode/Multimode Test Kit with Wave ID and Data Storage

SMLP5-5 Single-Mode/Multimode Test Kit with Wave ID, Set Reference and Data Storage The SMLP5-5 test kit combines the OPM5-2D optical power meter and OLS4 integrated LED and LASER light source and is ideally suited for testing fiber optic networks with hybrid (single-mode and multimode) cables.

### Features

- Certify multimode and single-mode links per TIA/EIA standards
- Wave ID automatic wavelength identification and switching
- Dual Wave ID, single Wave ID, CW, and modulated Tone (on single-mode output)
- 270 Hz, 330 Hz, 1 kHz, and 2 kHz Tone
- Large LCD with Backlight
- Power measurements in dBm or µW; insertion loss in dB
- Up to 500 test records per wavelength storage and download
- USB port for download of stored records
- Free 50 µm and 62.5 µm mandrels
- N.I.S.T traceable

Test Kit Model	SMLP5-5			
<b>Optical Light Source</b>	OLS4			
Optical	MM	Optical Port	SM Op	tical Port
Wavelength (nm)	850 ± 30 1300 -10/+50		1310 ± 20	1550 ± 20
Emitter type	LED, Class 1 (IEC 60825 - 1)		Laser, Class 1 (FDA 21 CFR 1040.10 and 1040.11, and IEC 60825-1)	
Connector	SC (FC, ST, or LC available) SC (FC, ST, or LC available		or LC available	
<b>Optical Power Meter</b>	OPM5-2D			
Power Range	+6 to -60 dBm			
Detector	Germanium (Ge)			
Data Storage (Items)		Up to 500	per wavelength	



### Package includes:

OLS4 optical light source, OPM5-2D optical power meter, AA batteries, protective rubber boots, adapter cap, USB cable, Windows® compatible software and user's guide, 50 and 62.5 µm mandrels, SMLP5-5 test kit user's guide, and carry case Test jumpers and connector adapters are required for operation (purchased separately).

### **ORDERING INFORMATION**

SMLP5-5-XX	SM/MM Test Kit w/ Wave ID & Data Storage	\$2,995.00
	(-XX = ST, FC, SC Connector)	

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Test Kits

TEST EOUIPMENT

# JDSU TEST EQUIPMENT

# 🔷 JDSU Optical Channel Checker

The JDSU OCC series is a handheld, battery operated Channel Checker that is ideal for field service groups tasked with the installation, maintenance, and upgrades of systems. The Channel Checker scans the system and automatically records all channels with the wavelength and the related power level. The information can be displayed in a graphical spectrum format, or in a table of results so that users can easily check the performance of each and every channel.

# OCC-55 CWDM

### **Optical Channel Checker**

### **Features**

- Industry's smallest and lightest CWDM channel checker
- Wavelength scan range: 1260 nm to 1620 nm
- Outstanding battery lifetime ensures highest flexibility
- Graphical/tabular display mode
- Results can be saved via internal memory
- Report generation software OFS-355

### **ORDERING INFORMATION**

OCC-55-CWDM	OCC-55 CWDM	\$6,251.70
OCC-56C-DWDM	OCC-56C DWDM	\$7,264.95

# 🗘 JDSU OLS-6 LIGHT SOURCE

### Pocket-sized Dual Wavelength

The OLS-6 offers high stability and long battery operating time in a rugged. pocket-sized casing for direct use in the field. With these instruments, no measurement errors occur due to different wavelength settings between the source and the receiver. These errors are avoided by automatic wavelength setting in power meters.

### Features

- Wavelengths: 1310/1550 nm, 1550/1625 nm, 1490/1550 nm
- Modulation for easy fiber recognition.
- Pocket-sized solutions for multimode and singlemode applications.
- Auto-lambda mode allows for automatic setting of JDSU power meters to OLS-6 wavelengths.
- Battery capacity indication (%) is displayed when the OLS-6 is switched on/off as well as an automatic power-down after 20 min to save battery life.

# OCC-56C DWDM

**Optical Channel Checker** 

### **Features**

- Industry's smallest and lightest DWDM channel checker
- Supports C-band or L-band applications
- Outstanding battery lifetime ensures highest flexibility
- Graphical/tabular display mode
- Supports 50 GHz, 100 GHz, or 200 GHz channel spacing (according to ITU-T)
- Results can be saved via internal memory or external USB memory stick
- Report generation software OFS-355





Test Equipment

iber optic.cor

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Quick charger for NiMH or NiCd cells (accessory)

### **ORDERING INFORMATION**

2255/02 OLS-6 - (1310/1550nm) FC/PC \$1,495.00

# 🔷 JDSU TLS-55 SMART Optical Tunable Laser Source

The TLS-55 Smart Optical tunable laser source is designed to support ROADM network channel routing applications. These handheld light sources are setting new benchmarks when it comes to size, weight and power. The tester also provides wavelength tuning in C-band or L-band on a footprint of only 195 x 95 mm at a weight of 500 g is unique in today's market.

### **SPECIFICATIONS**

	TLS-55C	TLS-55L
Wavelength range	1528.38 nm (191.70 THz) to 1563.86 nm (196.15 THz)	1570.42 nm (186.35 THz) to 1608.76 nm (190.90 THz)
Output power range	+9 dBm to +6 dBm, adjust- able	+9 dBm to +6 dBm, adjustable
Frequency accuracy	± 2.5 GHz	± 2.5 GHz

### **ORDERING INFORMATION**

TLS-55C-CBAND	TLS-55C C-band	\$8,624.70
BN 2279/91.15	1510 nm laser option (only with TLS-55C)	
TLS-55L-LBAND	TLS-55L L-band	\$8,624.70

### **Features:**

- Industry's first battery-operated tunable laser source for field applications.
- Supports ROADM network channel routing applications.
- Battery-operation ensures highest flexibility even for field applications.
- C-band or L-band version.
- Extra 1510 nm wavelength for OSC testing (only with TLS-55C).
- Supports 50 GHz, 100 GHz, or 200 GHz channel spacing(according to ITU-T).



### **OPTICAL LOSS KITS** PRO

Precision Rated Optics has developed optical test kits designed for specific markets within the communications industry.. With new advanced capabilities that make testing simple, PRO Test Kits are the best "go-to" kits for anyone involved in first-line optical fiber cabling installation and verification. Whether you are a fiber technician or contractor, our expertly configured kits contain all the tools necessary to quickly measure loss, power levels and inspect and clean connector end-faces. Features including both SM and MM testing capabilities along with Test Cables and SC, ST, FC and universal adapters in a semi-rigid carrying case make PRO the best fiber test kit on the market.

# • Three unit Semi-Rigid Carry Case

- Power Meter (Six Wavelength) • Light Source (FC Connector)
- 400x fiber inspection scope
- Cleaning supplies

**Features** 

Fiber(optic.com



### **PRO-100 ORDERING INFO**

PK-12D12A	PRO 100 Series Test Kit (SM)	\$1,720.40
	nplex SM UPC Patchcord 1 Meter, (1) FC-LC UPC Si e: Holds 3 HH, Scope, acc., (1) Light Source LS-102	
Power Meter PM-102	A, (1) Fiber Microscope with 400x magnification, (	1) IBC Cleaner (2.5mm)
Cleaning Tool, (1) Fib	er Optic Cleaning Cassette, (1) FC-SC Simplex SM U	JPC Patchcord 1 Meter.

(1) SC-SC Simplex SM UPC Patchcord 1 Meter, (1) Mating Sleeve SC SM, Flanged Simplex Zr

PK-12D12B	PRO 100 Series Test Kit (CATV)	\$1,809.65
(1) Semi-rigid Case: Hold (1) Power Meter PM-102 (2.5mm) Cleaning Tool, ( 1 Meter, (1) SC-SC Simpl	EX MM62.5 1 MTR, (1) FC-LC SIMPLEX MM I is 3 HH, Scope, acc., (1) Light Source LS-102D 28 (CATV), (1) Fiber Microscope with 400x ma (1) Fiber Optic Cleaning Cassette, (1) FC-SC Si lex SM UPC Patchcord 1 Meter, (1) Mating Sle MPLEX MM62.5 1 MTR, (1) FC-LC SIMPLEX M 1, Flanged Simplex Zr	0 (SM) 1310 & 1550, ignification, (1) IBC Cleaner implex SM UPC Patchcord eeve SC MM, Flanged

### **PRO-150 ORDERING INFO**

### PK-12D24A

### PRO 150 Series Test Kit (SM) \$1,949.90

Includes: (1) Semi-rigid Case: Holds 3 HH, Scope, acc., (1) Power Meter PM-204A (w/ data storage), (1) Light Source LS-102D (SIV) 1310 & 1550, (1) Fiber Microscope with 400x magnification, (1) IBC Cleaner (2.5mm) Cleaning Tool, (1) Fiber Optic Cleaning Cassette, (1) FC-SC Simplex SM UPC Patchcord 1 Meter, (1) SC-SC Simplex SM UPC Patchcord 1 Meter, (1) Mating Sleeve SC SM, Flanged Simplex Zr.

PK-13D24A	PRO 150 Series Test Kit (MM)	\$1,737.40
Includes: (1) FC-LC SIME	PLEX MM 62.5um 1 MTR, (1) FC-ST SIMPLEX MM62.5 1 N	VITR, (1) Semi-rigid Case:
Holds 3 HH, Scope, acc.,	(1) Power Meter PM-204A (w/ data storage), (1) Light Sou	urce LS-103D (MM) 850 &
1300, (1) Fiber Microsco	pe with 200X magnification, (1) IBC Cleaner (2.5mm) Clea	aning Tool, (1) Fiber Optic

Cleaning Cassette, (1) FC-SC UPC MM Simplex 2 meter, (1) SC-SC Simplex MM UPC Patchcord 2 Meters, (1) Mating Sleeve SC SM, Flanged Simplex Zr, (1) Mating Sleeve SC MM, Flanged Simplex, Pb, (1) Mandrel, 62.5um fiber. 3mm Jacket.

### **PRO-200 ORDERING INFO**

### **PK-22D24A** PRO 200 Series Test Kit (SM) \$2.289.90 Includes: (1) FC-LC UPC Singlemode Simplex 1 Meter, (1) FC-ST Simplex SM UPC Patchcord 1 Meter, (1) Semi-rigid case 200 Series Test, (1) Power Meter PM-204A (w/ data storage), (1) Light Source LS-202D (SM) 1310 & 1550, (1) Fiber Microscope with 400x magnification, (1) IBC Cleaner (2.5mm) Cleaning Tool, (1) Fiber Optic Cleaning Cassette, (1) FC-SC Simplex SM UPC Patchcord 1 Meter, (1) SC-SC Simplex SM UPC

rigid Case: Holds 3 HH, PM-102A, (1) Fiber Micr (1) Fiber Optic Cleaning UPC Patchcord 2 Meters	PLEX MM62.5 1 MTR, (1) FC-LC SIMPLEX MM 62.5un Scope, acc., (1) Light Source LS-103D (MM) 850 & 13 oscope with 200X magnification, (1) IBC Cleaner (2.5 Cassette, (1) FC-SC UPC MM Simplex 2 meter, (1) SC , (1) Mating Sleeve SC SM, Flanged Simplex Zr, (1) Ma Mandrel, 62.5um fiber, 3mm Jacket	00, (1) Power Mete mm) Cleaning Tool, -SC Simplex MM
PK-12D13D12A	PRO 100 Series Test Kit (Quad) VFL-1A	\$2,951.99
Meter, (1) Semi-rigid Ca LS-102D (SM) 1310 & 1 with 400x magnification	plex SM UPC Patchcord 1 Meter, (1) FC-LC UPC Single se: Holds 3 HH, Scope, acc., (1) Power Meter PM-102 550, (1) Light Source LS-103D (MM) 850 & 1300, (1) n, (1) IBC Cleaner (2.5mm) Cleaning Tool, (1) Fiber Op Jex SM UPC Patchcord 1 Meter, (1) Fiber patch cord f	A, (1) Light Source Fiber Microscope tic Cleaning

PRO 100 Series Test Kit (MM)

**PK-13D12A** 

MTR, (1) Fiber Patch cord MM 62.5 FC-SC 1MTR, (1) SC-SC Simplex MM UPC Patchcord 2 Meters, (1) Mating Sleeve SC MM, Flanged Simplex,Pb, (1) Mating Sleeve SC SM, Flanged Sim-

### PK-12D13D24A PRO 150 Series Test Kit (QUAD) \$3,378.89

plex Zr, (1) Mandrel, 62.5um fiber, 3mm Jacket

Includes: (1) Semi-rigid Case: Holds 3 HH, Scope, acc., (1) Power Meter PM-204A (w/ data storage), (1) Light Source LS-102D (SM) 1310 & 1550, (1) Light Source LS-103D (MM) 850 & 1300, (1) Fiber Microscope with 400x magnification, (1) IBC Cleaner (2.5mm) Cleaning Tool, (1) Fiber Optic Cleaning Cassette, (1) FC-SC Simplex SM UPC Patchcord 1 Meter, (1) SC-SC Simplex SM UPC Patchcord 1 Meter, (1) FC-SC UPC MM Simplex 2 meter, (1) SC-SC Simplex MM UPC Patchcord 2 Meters, (1) Mating Sleeve SC MM, Flanged Simplex, Pb, (1) Mating Sleeve SC SM, Flanged Simplex Zr, (1) Mandrel, 62.5um fiber, 3mm Jacket

### PK-12D13D24AL PRO 150 Series Test Kit (QUAD) - Lite \$3,153,44

Includes: (1) Semi-rigid Case: Holds 3 HH, Scope, acc., (1) Power Meter PM-204A (w/ data storage), (1) Light Source LS-102D (SM) 1310 & 1550, (1) Light Source LS-103D (MM) 850 & 1300, (1) FC-LC UPC Singlemode Simplex 1 Meter, (1) FC-ST Simplex SM UPC Patchcord 1 Meter, (1) FC-SC Simplex SM UPC Patchcord 1 Meter, (1) SC-SC Simplex SM UPC Patchcord 1 Meter, (1) FC-SC UPC MM Simplex 2 meter, (1) SC-SC Simplex MM UPC Patchcord 2 Meters, (1) Mating Sleeve SC MM, Flanged Simplex, Pb, (1) Mating Sleeve SC SM. Flanged Simplex 7r. (1) Mandrel, 62.5um fiber, 3mm Jacket

PK-23D24A	PRO 200 Series Test Kit (MM)	\$2,119.90
Includes: (1) Semi-rigid	Case: Holds 3 HH, Scope, acc., (1) Power Meter PM-204/	A (w/ data storage), (1) Light
	50 & 1300, (1) Fiber Microscope with 200X magnificatio	
	ptic Cleaning Cassette, (1) FC-SC UPC MM Simplex 2 m	
UPC Patchcord 2 Meters	, (1) Mating Sleeve SC MM, Flanged Simplex,Pb, (1) Mar	idrel, 62.5um fiber, 3mm
Jacket.		

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Power Meters & Light Sources

Patchcord 1 Meter, (1) Mating Sleeve SC SM, Flanged Simplex Zr.

877-529-9114 sales@fiberoptic.com

\$1,507.90

# **PR**<sup>®</sup> 100 Series

### **Power Meters**

The PM 100 series of power meters are designed for use with an optical source for performing optical loss measurements on fiber optic cables. PM100 series are designed for low budgets. It can meet the basic demand for testing. With the smaller size and weight, it is easier to use for testing.

### **SPECIFICATIONS**

	PM- 102A	PM- 102B
Wavelength (nm)	850/1300/1310/1490/1550/1625	
Connector	FC/PC, SC/PC, S	ST/PC, Universal
Detector Type	InGaAs	
Accuracy	+ 0.35 dB + 10nW	
Resolution	0.01dB	
Linearity	+ 5%	
Measuring Range (dBm)	-60 to +3 -40 to +23	
Operating Temperature	-10 to +50	
Storage Temperature	-20 to+70	
Power Supply	Li-ion Battery ; 5V AC/DC Adapter	

### Standard Accessories: • Carrving Bag

- User Manual
- Worldwide compatible AC/DC power adapter
- Test report
- Adapters: FC/PC, SC/PC, ST/PC
- Built-in 2.5mm Universal Adapter
- Li-ion Battery

### **Optional Accessories:**

### E2000 Adapter

- LC Adapter, external FC to LC adapter
- 2.5mm Universal Adapter
- 1.25mm Universal Adapter
- SRC-1 Semi-Rigid 100 Series Case

### **ORDERING INFORMATION**

PM-102A	Power Meter PM-102A	\$340.00
PM-102B	Power Meter PM-102B (CATV)	\$445.00

# PR© 200 Series Power Meters

The PM 200 series of Power Meters are functional and refined. These exceptional units have been designed to function in laboratories, LANs, WANs and CATV as well as long distance optical networks. The PM 200 series together with our Stabilized Laser Sources, can be used to identify optical fiber, measure optical attenuation, verify continuity and evaluate fiber link transmission guality.

### **Computer supported:**

Memory capacity of 1000 data items; enables data transfer to a PC via USB connection. With the software, the date sheet can be saved as excel or plain text.

### **Referencing functions:** Signal encrypting can also gi

Signal encrypting can also give the receiving end information on the power to be used as reference, helping ensure efficient referencing, even when the two units are far apart.

### **Auto-Wavelength Recognition:**

The LS-202D and LS-203D units can transmit with a wavelength identification digital encrypted protocol, enabling the PM2 Power Meter to automatically use the proper calibration parameters. This feature reduces the need for communication between the two technicians and decreases the potential for error.

### **SPECIFICATIONS**

	PM-202A	PM-204A	PM-202B	PM-204B
Calibrated Wavelength	850/1300/1310 /1490/1550/1625 (nm)			(nm)
Detector Type		InG	iaAs	
Accuracy	± 5% :	± 1nW	± 5% ±	10nW
Resolution	0.01dB0 +10dBm; 0. -600	1dB@-70 to	0.01dB@-40 to +26dBn 0.1dB@-50 to -40dBm	
Linearity		±	5%	
Measuring Range	-70 to +1	10 (dBm)	-50 to +26 (dBm)	
Tone Detection (Hz)		270,	1K,2K	
Operating Temperature	-10 °C to +50 °C			
Storage Temperature	-20 °C to +70 °C			
Power Supply	2pcs * Ni-MH AA(2500mAh); 6V AC/DC adapter			C adapter
Dimension (mm)	160L x 76W x 45H			
Net Weight	270g+			

### Standard Accessories:

FC/PC,SC/PC,ST/PC interchangeable connector, Batteries, Built-in 2.5mm Universal Adapter, manual, Carrying Bag, Software (CD), USB cable, Worldwide compatible AC/DC power adapter, and test report.

### **Optional Accessories:**

E2000 Adapter, External LC Adapter, 1.25mm Universal Adapter, SRC-1 Semi-Rigid 100 Series Case

### **ORDERING INFORMATION**

PM-202A	Power Meter PM-202A	\$550.00
PM-202B	Power Meter PM-202B	\$610.00
PM-204A	Power Meter PM-204A (w/ data storage)	\$610.00
PM-204B	Power Meter PM-204B (CATV) - (w/ data storage)	\$650.00



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# PR<sup>®</sup> 100 Series

### **Light Sources**

FiberCoptic.com

The LS 100 series offers excellent stability and portability for accurate fiber optic testing. The single output port provides stable laser power at dual wavelengths. This compact unit operates in either continuous wave (CW) mode or modulated mode. A low-battery indicator reminds the user to recharge the battery and the unit's light weight and smaller size delivers outstanding convenience usually only associated with higher-priced units.

### SPECIFICATIONS

	LS-102D	LS-103D
Output wavelength (nm)	1310 & 1550	850 & 1300
Emitter Type	LC	)
Connector	FC/I	РС
Output stability	Short Term (15 minutes): <0.1dB Long Term ( 5 Hours or above): <0.2dE	
Central Wavelength	1310 ± 20nm & 1550 ± 20nm	850 ± 10nm & 1300 ± 20nm
Spectral Width	5 nm	
Output Frequency (Hz)	270, 1K, 2K	
Output Power	- 5 d	Bm
Operating Temperature	-10 °C to +50 °C	
Storage Temperature	-20 °C to	0+70 °C
Power supply	Li-ion Battery ; 5V AC/DC Adapter	
Dimension (mm)	115L × 65W × 30H	
Weight	140 g	

### **Standard Accessories:**

- FC/PC connector
- (SC/PC, ST/PC, FC/APC, SC/APC Optional) • Carrying Bag
- User Manual
- AC/DC power adaptor
- Test report

### **Optional adapters:**

FC/PC male -SC/APC female Adapter, FC/PC male -FC/APC female Adapter, FC/PC male -MU/ PC female Adapter, FC/PC male -ST/APC female Adapter, FC/PC male -LC/PC female Adapter, Others connector adaptors

### **ORDERING INFORMATION**

LS-102D	LS-102D (SM) Light Source 1310 & 1550	\$995.00
LS-103D	LS-103D (MM) Light Source 850 & 1300	\$745.00

# PR© 200 Series Light Sources

The LS 200 series offer excellent stability and portability for accurate fiber optic testing. Single output port provides stable laser power at dual wavelengths. The compact unit operates in either continuous wave (CW) mode or modulated mode. The output power is adjustable through up & down keystroke. A low battery indicator reminds the user of recharging the battery.

### Auto-Wavelength Recognition:

LS2 units can transmit with a wavelength-identification digital encrypted protocol, enabling the PM2 Power Meter to automatically use the proper calibration parameters. This feature reduces the need for communication between the two technicians and decreases the potential for error.

### **SPECIFICATIONS**

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	LS-202D	LS-203D		
Output wavelength	1310 & 1550 nm	850 & 1300 nm		
Emitter Type	L	)		
Connector	FC/PC, SC/PC, ST/PC interchangeable connectors (APC is available at the time of ordering)			
Output stability	Short Term (15 min.): < ±0.05dB @ 1310,1550nm Long Term (8 Hours ): < ±0.1dB @ 1310,1550nm	Short Term (15 min.): < ±0.1dB @ 850, 1300nm Long Term (8 Hours ): < ±0.2dB @ 850, 1300nm		
Central Wavelength	1310±20 & 1550±20 nm	850±10 & 1300±20 nm		
Spectral Width	5 nm			
Output Frequency (Hz)	270, 100	0, 2000		
Output Power	-5 d	Bm		
Adjustable Range	±3dB, 0.1dB/step			
Operating Temperature	-10°C t	o 50°C		
Storage Temperature	-20°C t	o 70°C		
Power supply	2pcs * Ni-MH AA(2500mAh)			
Dimension (mm)	160L * 76W * 45H			
Weight	27	Og		

### Features:

- Easy-to-use, straight forward operation
- Eye-catching handheld package
- LCD backlight for easy operation in darker environments
- ±3dB Adjustable by the user
- Rechargeable battery inside
- 850nm & 1300nm available for multimode testing
- Three-year warranty and recommended calibration interval

### **Standard Accessories:**

FC/PC, SC/PC, ST/PC interchangeable connector, Carrying Bag, User Manual, Worldwide compatible AC/DC power adaptor, Battery, Test report

### **Optional Accessories:**

FC/APC Connector, SC/APC Connector, Aluminium Carrying Case

### **ORDERING INFORMATION**

LS-202D	LS-202D Laser Source (SM) 1310/1550	\$1,395.00
LS-203D	LS-203D Laser Source (MM) 850/1300	\$1,195.00



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# **PR 200 Series** Quad & Tri Light Source

The LS 200 series offer excellent stability and portability for accurate fiber optic testing. Single output port provides stable laser power at dual wavelengths. The compact unit operates in either continuous wave (CW) mode or modulated mode. The output power is adjustable through up & down keystroke. A low battery indicator reminds the user of recharging the battery

### **Auto-Wavelength Recognition**

LS 200 units can transmit with a wavelength-identification digital encrypted protocol, enabling the PM-204 Power Meters to automatically use the proper calibration parameters. This feature reduces the need for communication between the two technicians and decreases the potential for error.

### **Features:**

- Easy-to-use, straight forward operation
- Eye-catching handheld package
- LCD backlight for easy operation in darker environments
- Rechargeable batteries included
- Three-year warranty and recommended calibration interval

### **Standard Accessories:**

- FC/PC, SC/PC, ST/PC interchangeable connector
- Carrying Bag
- User Manual
- Worldwide compatible AC/DC power adaptor
- Battery
- Test report

### **Optional Accessories:**

- FC/APC Connector
- SC/APC Connector

### **ORDERING INFORMATION**

LS-201Q	LS-201Q Light Source (850/1300/1310/1550)	\$1,895.00
LS-202X	LS-202X Light Source (1310/1490/1550/1625)	\$2,650.00
LS-201T	LS-201T Light Source (1310/ 1490/ 1550)	\$1,895.00
LS-202T	LS-202T Light Source (1310/ 1550/ 1625)	\$1,895.00

### **SPECIFICATIONS**

	LS-201Q	LS-202X	LS-201T	LS-202T
Output wavelength (nm)	850/1300/1310/1550	1310/1490/1550/1625	1310/ 1490/ 1550	1310/ 1550/ 1625
Emitter Type		La	ser Diode	
Connector		FC/PC, SC/PC, ST/PC interchangeable con	nectors (APC is available at the time of orderin	g)
Output stability		Short Term (15 min.):         \$\$ 2.0.05dB @ 1310,1550nm and ±0.1dB@850 & 1300         \$\$ 2.0.05dB @ 1310,1550nm; ±0.1dB @ 1625nm           Long Term (8 Hours):         \$\$ 2.0.1dB @ 1310,1550nm and ±0.2dB@850 & 1300         Long Term (8 Hours):           \$\$ 4.0.1dB @ 1310,1550nm and ±0.2dB@850 & 1300         \$\$ 2.0.1dB @ 1310,1550nm; ±0.2dB @ 1625nm		
Central Wavelength	± 20nm 1310±20 & 1490±20 & 1550±20			
Spectral Width	5 nm 5 nm 5 nm		n	
Output Frequency (Hz)	270, 1000, 2000			
Output Power	-5 dBm			
Operating Temperature	-10°C to 50°C			
Storage Temperature	-20°C to 70°C			
Power supply	2pcs * Ni-MH AA(2500mAh)			
Dimension (mm)	160L * 76W * 45H			
Weight	270g			



### LS-201T / LS-202T Light Source

The LS-200T series has been specifically designed for FTTx testing applications where the 1490nm wavelength is utilized.

### Features:

• ±3dB Adjustable by the user

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optic.co

# **PR**<sup>©</sup> **OLM-202A** / 202B

### **Optical Loss Multimeter**

The OLM series Multimeter combines a power meter with a 3- wavelength laser source, for optical fiber network installation and maintenance. The units large data storage capacity makes it very convenient for transferring field test data to a PC through a USB connection interface.

### **Standard Accessories:**

User Manual, Rechargeable Batteries, Carrying Soft Bag, Interchangeable FC/SC/ST connectors, worldwide compatible AC /DC Power Adaptor, PC software, USB Connecting Cable

### **Optional Accessories:**

LC/E2000 connectors for power meter port, Aluminium Carrying Box, various connector adaptors

### **Features:**

- Auto wavelength recognition
- Data storage up to 999 items
- USB interface and PC associated software available



### **ORDERING INFORMATION**

OLM-202A	OLM-202A Optical Loss Multimeter	\$2,975.00
OLM-202B	OLM-202B Optical Loss Multimeter	\$2,975.00

### **SPECIFICATIONS**

		OLM-202A OLM-202B	
Power Meter	Calibration wavelength	850/1300/1310/1490/1550/1625 (nm)	
	Connector	Interchangeable FC/SC/ST for PC/APC	
	Data storage(items)	999 Yes	
	Ref. Value		
	Display Units	dB / dBm .	/ mW /uW
	Display precision(dB)	0.	01
	Accuracy	± 5%	± 1nW
	Wavelength Recognition	1310/1490/1550(inp	out power> -40dBm)
	Tone Detection	270 Hz / 1KHz / 2KHz(	input power> -40dBm)
	Measuring Range(dBm)	-70 to +10 -50 to +26	
Laser Source	Output wavelength	1310/1490/1550 (nm) Interchangeable FC/SC/ST for PC 270/1K/2K Hz -5dBm ± 0.5dB ± 0.1dB@1310/1550nm; ± 0.2dB@1490nm	
	Connector		
	Modulation frequencies		
	Output Power		
	Stability Long-term(8h)		
	Stability Short-term (15min)	± 0.05dB@1310/1550nm; ± 0.1dB@1490nm	
	Wavelength Recognizing Code	Yes	
General Specification	Auto Power off	Yes	
	Power Supply	2pcs *NiHM 1.2V, 200	0mAh; AC/DC Adapter
	PC interface	USB > 100 Hours (laser off) -20 °C~+70 °C -10 °C~+50 °C <90% (Non-condensing) 168L × 76W × 43H	
	Battery Life		
	Storage Temperature		
	<b>Operating Temperature</b>		
	Relative Humidity		
	Dimension (mm)		
	Weight (Gram)	3	10

# PRO TEST EQUIPMENT

# Fiber©ptic.com

# **PR**<sup>©</sup> **PON-301**

### **PON Meter**

Precision Rated Optic's advanced PON-specific power meter, the PON-301, is the flagship of PRO's test instruments specifically intended for FTTH and FTTP systems. The PON-301 is the ideal tool for FTTH/FTTP service activation and field application troubleshooting.

### **SPECIFICATIONS**

	FC/PC	SC/PC	ST/PC
Measurement Range	1310nm(Burst Mode)	1490nm	1550nm
	-25dBm~+5.5dBm	-30dBm~+15dBm	-40dBm~+20dBm
Spectral Passband	131 Onm	1490nm	1550nm
	1260nm~1360nm	1480nm~1550nm	1539nm~1565nm
Insertion Loss		1.5dB	
Accuracy	±0.5dB		
Linearity	±0.2dB		
Display	2.8 inch TFT LCD		
<b>Refresh Rate of Display</b>	2.5Hz		
Threshold	10 sets(configured via PC-based software)		
Number of Ports	2(1 for ONU,1 for OLT&.Video)		
<b>Operating Temperature</b>	14	to 122°F (-10 to +50°	C)
Relative Humidity	0%~95%,non-condensing		
Power Supply	1.2V*4pcs Ni-MH AA;12V AC/DC Adapter		
Battery life	>20 hours		
Dimension	7.5 x 4.1 x 2.2 in (190 x 105 x 55 mm)		
Net Weight	1.5 lbs (700g)		

# **PR** OVA-2015 / 2025

### **Optical Attenuator**

The OVA2 digital variable optical attenuator is a compact, portable instrument widely used in fiber link certification and routine maintenance as well as in lab environment.

### **SPECIFICATIONS**

	OVA-2015	OVA-2025
Attenuation Range	0~80dB	0~60dB
Fiber Type	SMF 9	/125µm
Calibrated Wavelengths	1310nm	/1550nm
Linearity	≤0	.3dB
Accuracy	0.2dB @3~30dB         0.2dB @3~20dB           1,0dB @ 30~60dB         0.5dB @ 20~50dB           2.0dB@60~80 dB         1.0dB@50~60 dB	
Insert ion Loss	<3dB	
Return Loss	>50dB(PC)	
Max Input Power	24dBm	
Power Supply	1.2 V Ni-MH	Battery * 2pcs
Connector	Interchangeable FC/PC, SC/PC, ST/PC connectors. (FC/APC, SC/APC are available at time of ordering)	
Operating temperature	-10°C to 50°C	
Storage temperature	-20°C to 60°C	
Relative humidity	0%~95% (non-condensing)	
Dimension	160L*76W*45H(nm)	
Weight	360g(Battery included)	

### Features:

- Pass-through connection for ONT signal measurement
- Simultaneous measurement of all PON signals
- Filtered detectors for individual measurements of each wavelength
- Upstream burst detection at 1310 nm



### Standard Accessories:

FC/PC,SC/PC,ST/PC interchangeable connector, manual, travel bag, software (CD), USB cable, AC/DC adapter, and test report.

### **ORDERING INFORMATION**

<b>PON-301</b> <i>PON - 301</i>	\$1,495.00
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### **Application:**

- Maintenance of Telecom Systems
- Maintenance of CATV Systems
- Fiber Optic Transmission System & Test Lab
- Various other Trouble Shooting Applications

### **Standard Accessories:**

FC/PC,SC/PC,ST/PC interchangeable connectors, Carrying Case, User Manual, Rechargeable Battery, Worldwide Compatible AC/DC Adaptor/Charger

### **Optional Accessories:**

Various connector adaptors

### **ORDERING INFORMATION**

OVA-2015	Optical Attenuator	\$3,795.00
OVA-2025	Optical Attenuator	\$3,395.00





# JDSU COPPER / NETWORK TESTERS

# JDSU SmartClass ADSL

### ADSL Service Installation Tester

The JDSU SmartClass ADSL is the perfect tool for the field engineer installing and maintaining ADSL services. The simple user interface, including graphical display and telephone style keypad, allows field engineers to quickly configure and verify performance of ADSL service. The ADSL layer measurements allow the field engineer to verify key parameters that will ensure the long term reliability of the customer's circuit. The built in data layer functionality allows the field engineer to verify that the end customers can achieve full authentication and access internet IP addresses. The built-in 10M Ethernet ensures that the service can be tested, not only at the DSLAM, MDF, cross-box, or NID (customer premise), but also at the customers PC interface.

### **ORDERING INFORMATION**

SC-DSLA	SmartClass Silver ADSL2+ Annex A Package	\$1,795.00
SC-DSLB	SmartClass Silver ADSL2+ Annex B Package	\$1,795.00
SC-DSLA-CU	SmartClass Gold ADSL2+ Annex A & Cu Package	\$2,195.00
SC-DSLB-CU	SmartClass Gold ADSL2+ Annex B & Cu Package	\$2,195.00



# ♦ JDSU Validator-NT™

### All-in-One Network Management Tool

Validator-NT's patented method of uploading and downloading information about cable tests and network configuration will help you to gather the necessary information to manage your network easily, while documenting changes, upgrades or new configurations. Clear, fast Speed and Performance Certification up to 1 Gigabit combines with powerful planning software and active network capabilities to give you the complete tool for installing, managing and fine-tuning any Ethernet network.

### **Features:**

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- Certifies CAT5, CAT5E and CAT6 Ethernet cables to be 1EEE compliant to 1 gigabit speed for all Ethernet systems
- Tests to TIA 568/570 interconnect standards
- Tests coax, telephone, audio and security cables
- Qualifies VoIP lines
- Includes powerful Plan-Um™ Cabling Project Management software
- Creates and prints job reports and cable labels
- Active network capabilities for test, link and identification
- Certify, identify, configure and document your network

### **Standard Accessories:**

Validator-NT Main Unit and Smart Remote, 2 lithium-ion rechargeable long-life batteries, 2 AC adapter/charger units, 4 adapter cable assemblies, Set of 8 wiremap remotes, USB cable assembly, Compact flash card, Plan-Um™ design layout software, Deluxe carrying case with cushioned sides. No other tester/certifier does so much, so easily, and so economically.





### **ORDERING INFORMATION**

NT955 Validator-NT™ Ethernet Speed Certifier

\$1,622.25

# JDSU COPPER / NETWORK TESTERS

# ♦ JDSU Validator™

### Network/Cabling LAN Certifier NT950

Designed specifically for Ethernet systems, the Validator™ NT950 measures and presents digital speed and performance results on CAT5, CAT5e, and CAT6 cables to ensure the cabling will do the job it's rated to do. Included software stores and organizes data into reports for billing, and archives network system information for later use in modifying or upgrading previously-installed systems.

### **Key Features**

- Shows Pass/Fail, cable length and speed rating
- Create custom floor plans or import existing AutoCAD/Visio files
- Show specific ports for network, telephone and cable
- Print end-of-job report for billing purposes
- Print/email and save layouts for approval

### Kit includes:

Validator™ main unit and smart remote, 2 lithium ion rechargeable batteries, 2 AC adapter/charger units, 4 adapter cable assemblies, USB cable assembly, Compact flash card, Plan-Um™ design layout software, Deluxe carrying case with cushioned sides.

# JDSU LanRoamerPRO™

### Tester/Analyzer TP600

This high-performance length measurement CAT 5/6 tester analyzes wiring faults and configurations on data cable.

### Kit includes:

LanRoamerPRO<sup>™</sup>, Remote #1, 12" (30.48 cm) cable assembly, RJ45 to alligator clip set TP40. 12" (30.48 cm) cable assembly, unshielded RJ45 connectors, 2 pieces TP56, Laminated quick reference card, Wire configuration sticker, Pouch PC150.

### **ORDERING INFORMATION**

**TP600** LanRoamerPRO<sup>™</sup> Cable Tester/Analyzer + Remote \$185.00

# 🔷 JDSU Testifier™ TP350

### Cable Tester and Verifier

The new Test-Um TP350 Testifier produces the most accurate and easy-to-understand results of any cable tester/verifier on the market. Its large LCD display is easy to read--it shows a clear picture of a wired cable; data, coax, telephone, security/alarm, or unterminated site wire.

A powerful, precise and professional cable tester/verifier for all wired cable runs, including: network, coax, telephone, audio, security.

CATV, telephone systems, audio cable, security/alarm wiring, and network cabling can all be tested and located using the Resi-TesterTM (TP350) and optional room identifier sets. Multiple input ports and included adapter cables mean any wire can be attached and tested!

### **Features**

### **Kit includes:**

- LCD display
- Easy-to-read results
- Built-in remote
- Auto-off
- Unbreakable case

Testifer™, #1 replacement remote TP309, #1 coax remote identifier TP65, 12" (30.48 cm) cable assembly, RJ45 to alligator clip set TP40, 7.5" (19.05 cm) cable assembly with no-fault RJ12 connectors for RJ11 or RJ45 jacks TP20.





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TEST EQUIPMENI

Copper / Network Testers

### ORDERING INFORMATION

NT950 Validator™ Ethernet Speed Certifier Kit \$1,330.00

# ✓ JDSU Net-Rite™

### Ethernet Network Tester

The Net-Rite™ TP250, a continuity and wiremap tester for Ethernet cable, tests and troubleshoots faults and miswires. This continuity/wiremap tester detects and troubleshoots faults and miswires in Ethernet cable up to 1000 ft (304.8 m) long. Its removable remote enables testing longer cable runs terminated in different areas.

Applications: Tests Ethernet cable for opens, shorts, split pairs, miswires and reversals.

### ORDERING INFORMATION

**TP250** Net-Rite™ Continuity and Wiremap Tester





### **ORDERING INFORMATION**

\$100.00



# MICROSCOPES & INSPECTION PROBES

# **JDSU**

FiberCoptic.com

### Video Inspection Probe Solution

From next-generation network installation to managing legacy systems, there are fundamental tools that every fiber optic technician uses. From optical power meters and visual fault locators to video microscope systems and cleaning materials, these tools are essential to anyone who handles fiber. Achieving optimized performance requires systematic and proactive methods that many technicians can find troublesome and confusing. The JDSU Essential Fiber Toolkits overcome barriers by integrating the essential tools together into a seamless system that is fast, portable, and easy.

### **FIT-S105-PRO** Fiber Inspection Probe

- Dual-magnification (200/400X) FBP video probe microscope
- Handheld inspect and test display system with integrated power meter and 400X PCM
- Interchangeable FBPT inspection tips (2):
- hhSC-PC bulkhead
- hhLC-PC bulkhead
- FMAE adapters (2) for PCM:
- hhUniversal 2.5 mm PC patch cord
- hhUniversal 1.25 mm PC patch cord
- Plastic case for inspection tips and adapters
- Carrying case

### **ORDERING INFORMATION**

FIT-S105-PRO	JDSU Fiber Inspection & Test Kit	\$3,307.50
FIT-S105-C	KIT HP3-60-P4, P5, TIPS, CLEANING TOOLS	\$2,940.00

Kit Includes: Handheld Display with integrated Power Meter & 400X Patch Cord Module. Includes 200/400X FBP Probe Microscope, FBPT Tips (SC, LC), FMAE Adapters, (U25M, U12M), Bulkhead/Patchcord Cleaning Tools (2.5mm & 1.25mm), Case & power supply - US

FIT-S105	Kit HP3-60-P4 w/ FBP 200/400x probe	\$2,625.00
	1411 1 2 00 1 1 10 12 200, 100 probe	

Kit Includes: Handheld Display with integrated Power Meter & 400X Patch Cord Module. Includes 200/400X FBP Probe Microscope, FBPT Tips (SC, LC), FMAE Adapters (U25M, U12M), Case & power supply - US

### **FBP-S003** Fiber Inspection Probe

The FBP-S003 is a Dual-magnification (200/400X) FBP probe microscope hardwired to HD1 display with 3.5in TFT LCD; interchangeable FBPT inspection tips (4) in hard case: SC and LC bulkhead tips; Universal 2.5 mm and 1.25 mm patch cord tips; hard-sided carrying case.



### **ORDERING INFORMATION**

FBP-S003	DUAL- Magnification 200/400x Probe Kit	\$2,520.00
FBP-S002Probe Kit: 400X FBP Probe, Hardwired\$2,310.		\$2,310.00
includes inspec	200x FBP-P1-400 probe hardwired to an FBP-HD1 disp tion tips for SC & LC bulkheads and universal 1.25 &	

cords, a power supply, and hard case

**FBP-S001** Probe Kit: 200X FBP Probe, Hardwired \$2,310.00

Kit Includes: 200x FBP-P1 probe hardwired to an FBP-HD1 display. It also includes inspection tips for SC & LC bulkheads and universal 1.25 & 2.5mm patch cords, a power supply, and hard case.

## **OLP-82** SmartClass Inspection Kit

The new OLP-82 from JDSU is the first handheld tool to combine pass/ fail fiber inspection and optical power measurement (OPM) into one solution. As part of the new JDSU SmartClass Fiber Family, the OLP-82 helps service providers guarantee a lifetime of system performance from their network connectivity and gives contractors an essential tool for delivering best-in-class reliable networks to their customer



### **ORDERING INFORMATION**

FBP-SD4i	HD4I/P5000i/Tip Case Inspection Kit \$2,700.			
Cable, Manual, Dry	32, Soft Bag, Power Supply, FiberChekPRO Softw Batteries (8x), P5000i Digital Inspection Microsco ord: 2.5 and 1.25 mm, 1.25 mm OPM Adapter (	ope, Bulkhead:		
FIT-8201-PRO	OLP-82 SmartClass Inspection Kit	\$3,750.00		
Cable, Manual, Dry	2, Soft Bag, Power Supply, FiberChekPRO Softw Batteries (8x), P5000i Digital Inspection Microsc	ope, Bulkhead:		

SC and LC, Patch Cord: 2.5 and 1.25 mm), 1.25 mm OPM Adapter, Cleaning Materials for 2.5 and 1.25 mm, Hands-Free Carrier, Rechargeable Battery, FFL-050 Visual Fault Locator with 2.5 and 1.25 mm Adapter

FIT-82P01-PRO	OLP-82 SmartClass Inspection Kit	\$4,250.00
	w/Power Meter	

### FBP-SM05 Fiber Inspection Probe

The HD3-P display further expands the value of the popular HD3 series by integrating a PATCHCORD MICROSCOPE (PCM) into the compact design. By combining the power of two microscopes into one system, the HD3-P enables you to inspect both the "female" (bulkhead) and "male" (patch cord) sides of a fiber interconnect at the same time. The patch cord scope accepts our FMAE Series adapters, but is configurable to accept FMA Series adapters with the use of a coupler



### **ORDERING INFORMATION**

### FBP-SM05-C Inspection and Cleaning Kit- 200/400X \$2,572.50

Kit Includes: FBP series Dual Magnification (200/400X) Probe Microscope with an integrated HD3-P4 display (includes a power supply/charger with US plug). Also included are 2 FBPT series inspection tips (SC & LC) for bulkhead inspection and 2 FMAE adapters (Univ. 2.5mm and Univ 1.25mm) for inspecting patch cords

FBP-SM05	Inspection Kit – 200/400X FBP W/HD3-P4	\$2,257.50
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Kit Includes: FBP series Dual Magnification (200/400X) Probe Microscope with an integrated HD3-P4 display (includes a power supply/charger with US plug). Also included are 2 FBPT series inspection tips (SC & LC) for bulkhead inspection and 2 FMAE adapters (Univ. 2.5mm and Univ 1.25mm) for inspecting patch cords. Kit also includes a carrying case which holds all the components of this kit.

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# MICROSCOPES & INSPECTION PROBES



The FBP-SM03 features our industry leading 200/400x FBP-P5 probe hardwired to an FBP-HD3 display. It also includes inspection tips for SC & LC bulkheads and universal 1.25 & 2.5mm patch cords, a power supply, and case.



### **ORDERING INFORMATION**

FBP-SM03-C	Inspection & Cleaning Kit 200X/400X FB	\$2,205.00

Kit Includes: 200X/400X FBP Probe, HD3 Display, FBPT tips SC, LC, FC, ST, SC-APC, U25M, U25MA, U12M, Bulkhead/Patchcord Cleaning Tools (2.5mm & 1.25mm), carrying case & power supply/charger

### FBP-SM03 Probe Kit: 200/400X FBP Probe, Hardwired \$1,890.00

Kit Includes: 200/400X FBP Probe, Hardwired to HD3 Display, Case, Tips: SC, LC, U25, U12

### **FVW Series** Bench Top Inspect System w/Monitor

The FV and FVW-series microscopes utilize coaxial illumination to provide the user with a critical view of fine scratches, making them the ideal choice for factory postpolish, component assembly, and QC inspection of fiber connectors. Both systems feature a focusing head that accepts an extensive selection of FMA-series adapters. The FVW-series includes a stand alone 10.5-inch LCD flat screen display integrated microscope. These units also include a 2.5 mm universal adapter for viewing the most common types of connectors. Additional adapters can be purchased separately.

FV-series workstations are bench-top video microscopes designed for inspecting patch cords and ferrules after polishing. They are available in several magnifications, but in general, our 400X models are used after polishing to inspect for fine defects incurred during the polishing or cleaning process. The 200X models are most commonly used to inspect for cleanliness during system assembly prior to mating connectors. JDSU's FV systems have become the industry standard because they deliver crystal-clear imaging of fine defects

### FBP-SD101 Inspection Kit w/P5000i

The JDSU FBP-SD101 P5000i Dual-Magnification Digital Analysis Probe inspects and certifies the end faces of fiber connectors. Quick and easy go/ no-go analysis of the end face condition. This kit includes FiberCheckPRO software for use with a PC or laptop. You can also connect the P5000i directly to your JDSU TBERD 2000, 4000, 6000, or 6000A, or HST-3000e (current firmware required). The JDSU FBP-SD101 includes SC & LC bulkhead inspection tips, universal 2.5mm & 1.25mm patchcord tips and a case.



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### **ORDERING INFORMATION**

	FBP-SD101	FBP-SD101 Probe Kit w/P5000i	\$2,400.00
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### **ORDERING INFORMATION**

FVW-409	Bench Top Inspect System w/Monitor	\$1,197.45

### **JDSU FBPT Probe Tips**

FBPT-U25M	Universal 2.5mm Patch Cord Tip	\$78.75
FBPT-U25MA	Universal 2.5mm Patch Cord Tip, APC Polish	\$90.00
FBPT-U12M	Universal 1.25mm Patch Cord Tip	\$78.75
FBPT-U12MA-SF	Universal 1.25mm Patch Cord Tip, APC Polish	\$140.00
FBPT-SC	SC Bulkhead Tip	\$56.25
FBPT-SC-L	SC Bulkhead Tip, Long Reach	\$315.00
FBPT-SC-APC	SC-APC Bulkhead Tip	\$112.50
FBPT-SC-A6	SC Bulkhead Tip, Ang. 60 Deg.	\$475.00
FBPT-ST	ST Bulkhead Tip	\$78.75
FBPT-ST-A6	ST Bulkhead Tip, Ang. 60 Deg.	\$525.00
FBPT-LC-L	LC Bulkhead Tip, Long Reach	\$315.00
FBPT-LC-APC	LC-APC Bulkhead Tip	\$472.50
FBPT-LC	LC (LX5 Connectors) Bulkhead Tip	\$78.75

### **JDSU FBPT Probe Tips**

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FBPT-FC	FC Bulkhead Tip	\$73.50
FBPT-FC-A6	FC Bulkhead Tip, Ang. 60 Deg.	\$525.00
FBPT-FC-APC	FC-APC Bulkhead Tip	\$157.50
FBPT-FCA-1	FC-APC Bulkhead Tip, No Collar	\$160.00
FBPT-E2000	E2000 Bulkhead Tip, APC or PC	\$262.50
FBPT-SMA	SMA Bulkhead Tip	\$265.00
FBPT-MU	MU Bulkhead Tip	\$125.00
FBPT-MTRJ-1	MTRJ (simple type) Bulkhead Tip	\$147.00
FBPT-MTP-L	MTP/MPO PC Bulkhead Tip	\$761.25
FBPT-MTPA-L	MTP/MPO APC Bulkhead Tip	\$1,050.00
FBPT-MTPA	MTP-APC X-AXIS PAN KNOB FOR FBP	\$971.25
FBPT-UFMA	Westover Universal Flare Adapter	\$73.50

### JDSU FBET Probe Tips

FBET-U25M	Tip, Univ. 2.5mm Patch Cord, for FBE	\$21.00
FBET-U25MA	Tip, Univ. 2.5mm Patch Cord, APC, for FBE	\$32.00
FBET-U12M	Tip, Univ. 1.25mm Patch Cord, for FBE	\$21.00
FBET-SC	Tip, SC Bulkhead, for FBE	\$21.00
FBET-SCA	Tip, SC/APC Bulkhead, for FBE	\$32.00
FBET-LC	Tip, LC Bulkhead, for FBE	\$32.00
FBET-FC	Tip, FC Bulkhead for FBE	\$21.00
FBET-ST	Tip, ST Bulkhead, for FBE	\$21.00

# **EXFO Inspection Probes**

### **EXFO FIP-400S / FIP-400D**

**Fiber Inspection Probes** 

Thanks to EXFO's FIP-400 Fiber Inspection Probe, checking connectors and other fiber terminations for polish quality and cleanliness has never been easier. Benefit from the best optical resolution in the industry and see scratches and dirt particles as small as 1 um.

FIPT-400-ADAPTER

FIPT-400-FC-SC-APC

FIPT-400-U25M

FIPT-400-U25MA

FIPT-400-U20M

FIPT-400-MU

adapters, 60"

APC terrules

Samles FIPT-400-ST

FC and SC tp for APC bulkheads

Universal patchcord tip for 2.5 mm

sal patchcord tip for 2.5 mm

ST tip for buildhead adapters

D4 patchcord tip for D4 temules

MU tip for builthead adapters

FC and SC angled tip for buikhead

FIPT-400-FC-SC-A6



### **EXFO Probes**

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FP4S	FIP-400-P-SINGLE: 400x Fiber Inspection Probe	\$1,225.00
FP4D	FIP-400-P-DUAL: 200x/400x FIP	\$1,595.00
FIP-400-D	Handheld display with power supply and rechargeable battery	\$850.00
FIP-400-DSINGLE	400x Video Inspection Probe KIT with handheld display	\$1,950.00
FIP-400-D-DUAL	200x/400x Video Inspection Probe KIT with handheld display	\$2,325.00
FIP-400-USB2SIN	400x Video Inspection Probe KIT w/ USB2 converter	\$1,495.00
FIP-400-USB2DUA	200x/400x Video Inspection Probe KIT w/ USB2 converter	\$2,245.00
FIP-400-USB2	USB 2.0 Converter Module	\$375.00
FIP-400-USB1SIN	400x Video Inspection Probe KIT w/ USB1 converter	\$1,720.00
FIP-400-USB1DUA	200x/400x Video Inspection Probe KIT w/ USB1.1 converter	\$1,895.00
FIP-400-USB1	USB 1.1 Converter Module	\$375.00

### Adapter Tips

FIPT-400-LC

LC to for buildhead adapters FIPT-400-U12M

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Universal patchcord tip for 1.25 mm formles

FIPT-400-LC-APC LC/APC tip for buildhead adapters

FIPT-400-U12MA real patchoord tip for 1.25 mm APC terrules

FIPT-400-E2000-APC E2000 APC tip for builthead adapters

- FIPT-400-MTPA2 MTP/APC tip for builthead adapters.
- FIP-400-OTIP-MT-APC/M Male adapter tube for
- FIPT-400-OTIP-MT-APC tip FIPT-400-LC-A6
  - LC angled tip for builthead adapters. 60

FIPT-400-FC-SC FC and SC PC tip for builthead

FIPT-400-MTP MTP to for PC buildhoads

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FIPT-400-E2000 E-2000 tip for builthead adapters

FIPT-400-D4 D4 tip for buildhead adapters

FIPT-400-OTAP-APC OptTap<sup>11</sup> bulkhead adapters

FIPT-400-LXS-APC

LX5/APC tp for builthead adapters FIPT-400-SC-L

Extended SC tip for PC builthead adapters

FIPT-400-OTIP-MT-APC MT/APC type Opt/Tip<sup>111</sup> multifiber adapter for male and female connectors-comes as a kit, compatible with male and female cable ends
# MICROSCOPES & INSPECTION PROBES

# **PR** VIP-Kit 1 / Kit 2

Video Inspection Probe

The VIP-35 Inspection Probe is designed to provide customers the ability to troubleshoot network performance issues (most commonly caused by dirty connectors) by inspecting the endface of a connector for debris. The VIP-35 kit includes a 400x power probe and a 3.5 inch display for easy viewing of small particles which may exist on the connector. With the included probe tips, the user has the ability to check the quality of both the cable and bulkhead connectors.

All Kits Include: Hard Carrying Case 400X Probe and Monitor AC Charger	0
Kit 1 Adapters: FC/SC/ST Bulkhead Adapter 2.5mm Universal Adapter	
	PRo
Kit 2 Adapters: FC/SC/ST Bulkhead Adapter LC Bulkhead Adapter	

#### Kit 2 Adapte

FC/SC/ST Bull LC Bulkhead 2.5mm Universal Adapter 1.2mm Universal Adapter

#### **ORDERING INFORMATION**

PRO-VIP-35-K1	3.5 in Video Inspection Kit - 2 Tips	\$995.00
PRO-VIP-35-K2	3.5 in Video Inspection Kit - 4 Tips	\$1,200.00

## PR Hand-Held Microscopes

The Mini Hand-Held Microscope is available in 200x and/or 400x magnification. White LED lighting is powered by two "3V" Lithium cell batteries.



#### **ORDERING INFORMATION**

FOM-HM-C2005	PRO 200X Microscope	\$179.00
FOM-HM-C400S	PRO 400X Microscope	\$199.00

## NOYES VS300 View Safe Video Microscope

The VS300 is a 400x video microscope with no direct optical path from the connector under inspection to the user.

Each scope includes a 2.5 mm Universal adapter cap and neck strap and carry case.

The Noyes VS300 models use thread-on adapter caps

#### **ORDERING INFORMATION**

Noves VS300 View Safe Video Microscope VS-300 \$835.00

## **SPECIFICATIONS**

	VIP- 35 Kit 1	VIP- 35 Kit 2
Magnification	400X	
Screen size		3.5 in
Dimensions	5.51 x 3	8.03 x 1.53 in
Weight	1	5.7 oz
Screen type	TFT A	ctive Matrix
Video output	PAL / NTSC	
Power	12V DC Built-in Li-on Rechargeable Battery	
Input Power	110-240V AC Adapter	
Power supply	AC or DC Operation	
Battery	3 Hours	
Charging	3 Hours	
Operating Temperature	+ 4 °F to 122 °F (-10 °C to +50 °C)	
Connectors Included	Universal Patch Cord Tip	
Adapters Included	2.5mm / 1.25mm / 2.5mm <sup>(bulkhead)</sup> / LC <sup>(bulkhead)</sup>	
Data Storage	No (Coming soon)	
Data Download	No (Coming soon)	

# **JDSU** Hand-Held Microscopes

The FM-L200 is a ruggedized field scope with magnification of 200x and oblique illumination. It comes with a universal 2.5mm adapter (ST, SC, and FC connectors).



#### **ORDERING INFORMATION**

FM-C400	Hand Held Microscope, 400X, Coaxial	\$252.00
FM-DI200	Westover 200x Dual Illumination Scope	\$252.00

# NOYES

## Fiber Optic Inspection Scope

The Noyes OFS-300 with universal adapter (ST, FC & SC) is a versatile instrument used to inspect fiber optic connectors. Recommended for both multimode and singlemode applications. Operates on 2 AA alkaline batteries. Call for additional adapters.

#### **ORDERING INFORMATION**

OFS-300-200C Noyes 200X Scope w/ 2.5mm adapter





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EST EQUIPMENT

# VISUAL FAULT LOCATORS

## **NOYES HiLite & VFI2**

#### Visual Fault Identifiers

The HiLite and VFI 2 are compact but powerful visible red laser sources designed to troubleshoot faults on fiber optic cables. Light generated by these units will escape from sharp bends and breaks in jacketed or bare fibers, as well as poorly mated connectors. They can identify faults in fiber optic jumper cables, distribution frames, patch panels, and splice trays.

The HiLite and VFI 2 are an excellent complement to an OTDR because they can locate faults inside the OTDR's dead-zone. Other applications include end-to-end continuity checks, identifying connectors in patch panels and fibers during splicing operations. The universal connector interface provides fast operation with many connector styles without changing an adapter.

#### **Features**

- 650 nm visible red laser source
- Compact size
- High power (1 mW)
- Universal connector interface for quick connection

## **ORDERING INFORMATION**

VFI2-00-0900PR	VFI 2 unit, instruction card, and carrying case.	\$379.00
VFI3-00-0900PR	Noyes HiLite VFL 2.5mm Adapter	\$279.00

VFI2

# PRO VFL-1A



HiLite

## Visual Fault Locator

The VFL-1A is a compact but powerful visible light source with three (3) variable output power levels which include 0 / 3 / 8 dBm. The VFL-1A can be used to locate sharp bends and breaks in jacketed or bare fiber within 10km. It can also be used to identify connectors in patch panels or identify fibers during splicing operations.

#### **Features:**

- 3 adjustable output powers 0/3/8 dBm
- Back-light for LCD display
- Auto Shut-off

#### **Standard Accessories:**

(SC/PC, ST/PC, FC/APC), Carrying Bag, User Manual, AC/DC power adaptor, Test report

## **SPECIFICATIONS**

	VFL-1A	
Wavelength	650 ± 10nm	
Emitter type	LD	
Connector type	FC/ST/SC	
Modulated Frequency	2 Hz	
Output Power	0, 3, 8 dBm (adjustable)	
Power Supply	AC/DC adapter & Li-ion Battery	
Battery Life	20 hours (continuous operation)	
<b>Operating Temperature</b>	14 to 122 °F (-10°C to +50°C)	
Storage Temperature	-14 to 158 °F (-20°C to +70°C)	
-20°C to +70°C	0 ~ 95%	
Dimension (mm)	115L x 65W x 30H	
Weight	140g	

#### **ORDERING INFORMATION**

VFL-1A VFL-1A

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\$395.00

## EXFO FLS-240 Pocket Pal

## Visual Fault Locator

The Pocket Pal is the easiest way to identify fibers from end to end and locate polished connector endfaces. Its red laser shines through most yellow-jacketed fibers to help you pinpoint breaks, bends, faulty connectors, splices and other causes of signal loss. It has a reach of up to 5 km. The convenient FLS-240 locates faults visually by creating a bright red glow at the exact location of the fault on singlemode or multimode fibers.

#### **ORDERING INFORMATION**

FLS-241-UNIV	Pocket Pal VFL - 635nm Wavelength , 2.5mm sleeve	\$370.00
GP-1008	VFL Adapter (2.5mm to 1.25mm)	\$125.00

## WILCOM Pen-Style VFL Pocket Visual Fault Locator

The Wilcom Pocket Visual Fault Locator is a pencil style that features a universal connector accepting any optical connector style with a 2.5mm ferrule. The F6230A emits a visible red light, which can be seen for up to 5 km. Designed for singlemode and multimode.



#### **ORDERING INFORMATION**

F6230A	Pocket VFL w/ Universal Adapter	\$280.00
30032232-01	F2630A Adapter - Converts 2.5mm to 1.25mm	\$100.00

# PRO VFL-5

## Pocket Visual Fault Locator

The Precision Rated Optics VFL-5 is a high-quality, low-cost VFL solution for visual fault location. The VFL-5 has all of the same features as the big-boys (1 mW power, 650nm wavelength RED laser, 2.5mm universal adapter, continuous and modulated output), in a small-package that is easy to find space for in any equipment case or tool-belt.



#### **ORDERING INFORMATION** VFL-5

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\$175.00

# PRO VFL-10

## Pocket Visual Fault Locator

The VFL-10 is a compact but powerful visible light source with an output power up to 8dBm. The VFL-10 can be used to locate sharp bends and breaks in jacketed or bare fiber within 10km. It can also be used to identify connectors in patch panels or identify fibers during splicing operations.



#### **ORDERING INFORMATION**

E-10

\$250.00



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# OPTICAL FIBER IDENTIFIERS

# **PR**<sup>©</sup> Optical Fiber Identifiers

The PRO Optical Fiber Identifier is a rugged, easy-to-use installation and maintenance instrument which identifies optical fibers by detecting the optical signals being transmitted through a fiber. By utilizing local detection technology (non-destructive macro-bend detection which does not damage or overstress the fiber), the unit eliminates the need to open the fiber at the splice point for identification; eliminating the probability of interrupting service. The Optical Fiber Identifier detects low frequency tones at 270 Hz, 1000 Hz and 2000 Hz. When traffic is present on the fiber under test, an audible tone can be heard as well as the traffic direction which is indicated by LEDs illuminating on the probe.

## **OFI-11** Optical Fiber Identifier

#### Features:

- Detect a variety of optical tones, 270Hz, 1kHz and 2kHz
- Powered by 2 units of 1.5V AA alkaline batteries
- RB0.25mm, RB0.9mm, RB3 .0mm plungers available

#### **Standard accessories:**

Carrying case, Manual, Battery, Two interchangeable adapter head (clamps), for jacketed and bare fiber, Test report

**Optional accessories:** RB2.0mm plunger



# **OFI-30**

## **Optical Fiber Identifier**

#### **Features:**

- Easy-to-use with "ONE KEY" operation
- Efficiently identifies the traffic direction and frequency tone (270Hz, 1KHz, 2KHz) with audible warning.
- Displays the relative core power
- More accurate test with Sunshade
- Fiber Inspection Video Probe Port
- Easy-to-replace adaptors
   Durable motal bausing and
- Durable metal housing and quality construction
- Lower power indication

#### **Standard Accessories:**

PRO OFI-30 Optical Fiber Identifier, 4pcs adapter heads, Sunshade, Alkaline battery, User Manual, Cotton Stick and Soft Carrying case.



#### **ORDERING INFORMATION**

OFI-11	OFI-11 Optical Fiber Identifier	\$995.00
OFI-30	OFI-30 Optical Fiber Identifier	\$1,195.00

# **Wilcom Optical Fiber Identifiers**

The Wilcom Models F6222 and F6222C Optical Fiber Identifier are a rugged, easy-to-use installation and maintenance instrument which identifies optical fibers by detecting the optical signals being transmitted through a fiber. The Model F6222C Optical Fiber Identifier is designed specifically to meet the needs of the CATV industry. By utilizing local detection technology (nondestructive macro-bend detection which does not damage or overstress the fiber), the unit eliminates the need to open the fiber at the splice point for identification; eliminating the probability of interrupting service. Both Optical Fiber Identifiers detect low frequency tones at 270 Hz, 1000 Hz and 2000 Hz. When traffic is present on the fiber under test, an audible tone can be heard as well as the traffic direction which is indicated by LEDs illuminating on the probe.

# F6222 / F6222C

## **Optical Fiber Identifier**

#### **Features:**

- Rugged Metal Case:- The units use the same field proven lightweight rugged metal housing as the rest of Wilcom's Optical Fiber Identifier product line.
- 850nm to 1700nm Range:- With the use of InGaAs detectors, the unit can be used on singlemode and multimode applications.
- Audible Tone:- The unit provides an audible tone in the presence of a fiber optic signal.
- Core Power Display:- Both the F6222 and F6222C can display Relative Core Power which is helpful in identifying bad connectors, splice points, etc.
- LED Indication:- LEDs indicate tone detection, Traffic presence, Traffic Direction, and Low Battery.
- Hands-Free-Operation:- With an easy to use thumb lock, hands-free operation can be enabled and disabled.

#### **Standard Accessories:**

Carrying pouch containing three easy to use field interchangeable adapter heads to accommodate; 900 µm buffered fiber, ribbon or 250µm coated fiber and 3mm jacketed fiber

#### **ORDERING INFORMATION**

F6222	Wilcom F6222	\$1,795.00
F6222C	Wilcom F6222C	\$1,795.00

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# OPTICAL FIBER IDENTIFIERS

# **AFL/NOYES Optical Fiber Identifiers**

Noyes Optical Fiber Identifiers are rugged, handheld, and easy-to-use fiber optic test instruments designed to detect optical signals transmitted through a single-mode fiber without disrupting traffic. During installation, maintenance, rerouting, or restoration; it is often necessary to isolate a specific fiber. By simply clamping an Optical Fiber Identifier onto a gently bent fiber, the unit will indicate if there is [No Signal], [Tone], or [Traffic] and identify signal direction. The OFI is equipped with a unique two-position head design that can be configured to work with 250 µm, 900 µm, ribbon, or jacketed fiber in seconds, without tools or adjustments. When testing coated fibers, the slim design allows easier access on a splice tray where the amount of work space is limited. The clamping trigger is ergonomically designed to fit the natural motion of the operator's hand. A high impact molded plastic case makes it suitable for use outside plant or in the central office. The OFI is battery operated with the battery indication feature and performs thousands of tests before batteries replacement is necessary.

# **OFI 200D**

#### **Optical Fiber Identifier**

#### **Features:**

- Rugged, handheld, lightweight
- Accepts 250µm and 900µm coated fiber, 3mm jacketed fiber cable, and ribbon fiber
- No head swapping or adjustments
- Identifies light carrying fiber
- Low insertion loss traffic remains uninterrupted
- Indicates direction of traffic
- Indicates Tone signal visually and audibly
- 2kHz Tone detection
- Battery operated
- Low battery indication
- Low cost, easy to use



# **OFI 400**

## **Optical Fiber Identifier**

The OFI 400 model Identifier is the next generation of Noyes Optical Fiber Identifiers. It has all the features of the OFI 200 model plus easy-to-read LCD display with Backlight, multiple [TONE] signal detection (270 Hz, 330 Hz, 1 kHz, or 2 kHz), power saving feature, and [Set Reference] feature. The OFI 400 model also measures and displays fiber core power or relative power on an LCD display.

#### Features:

- 270 Hz, 330 Hz, 1 kHz, and 2 kHz Tone detection
- Easy-to-read LCD display with backlight
- Measures fiber core or relative power
- Power off and set reference feature
- Battery operated
- Low battery indication
- Low cost, easy to use

#### **ORDERING INFORMATION**

OFI-200D	Noyes Fiber Identifier OFI 200	\$1,495.00
OFI-400	Noyes Fiber Identifier OFI 400	\$1,445.00

# EXFO LFD-300 / TG-300

## Live Fiber Identifier

For detecting dark/live fibers or identifying a particular dark fiber using a pulse light (270 Hz, 1 kHz, 2 kHz), traditional LFD functionality does the trick. However, they cannot pinpoint a specific live fiber—especially with doubtful labeling and poor record-keeping—and help you ensure you disconnect the right one. In addition, disconnecting the wrong fiber causes downtime, a costly consequence that can easily be avoided. For instance, at US\$10,000 per hour and per wavelength, downtime can cost up to US\$160,000 per hour for a 16-channel 10 Gbit/s WDM system. Combined with the TG-300, a non-intrusive, non-disruptive clip-on signature generator that is based on FiberFinder technology, EXFO's LFD-300 addresses this need with guaranteed low loss. Installed at the transmitter site, the TG-300 adds a typical 0.25 dB signature to the live signal by applying a soft low-frequency modulation pressure to the fiber. This signature is then detected at the other end by the LFD-300, in mere seconds, enabling technicians to identify a specific live fiber without having to disconnect it and, above all, without having to guess.

#### Features:

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- Maximum loss of 1 dB guaranteed for most singlemode telecom fibers (most jacket types) and any wavelength
- No damage to the fiber: bending is always minimal, and the fiber is released when no power is detected
- Traffic detection and direction identification
- In-line, non-disruptive power estimation
- Safe to be used in long-haul applications and on high-payload fibers contrary to traditional live fiber detectors
- Optimized for 9001/4m, 1.6 mm and 3 mm jackets; no need to replace the headpiece

#### **ORDERING INFORMATION**

LFD-300	LFD-300 Live Fiber Identifier	\$2,995.00
TG-300	TG-300 Tone Generator	\$3,595.00
TK-FF	Fiber Finder kit	\$5,995.00
Kit Includes: (1)	LFD-300. (1) TG-300 and (1) soft carrying bag	

#### **SPECIFICATIONS**

Fiber type	3 mm, 1.6 mm, 900 µm		
Insertion loss (dB)	Maximum guaranteed	1	
	1550 nm	0.5	
	1310 nm	0.3	
Power range (dBm)	25 to –35		
Power measurement repeatability (dB)	±1		
Test time (s)	<20		
Size (H x W x D)	9 5/8 in x 1 3/4 in x 2 1/4 in		
Weight (no batteries)	0.8 lb		
Temperature	operating	32 °F to 122 °F	
	storage	–40 °F to 158 °F	
<b>Relative humidity</b>	0 % to 93 % non-condensing		



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FiberCoptic.com

# CONSUMABLES & CLEANING PRODUCTS

# Isopropyl Alcohol

99% reagent grade isopropyl is issued in cleaning fiber or connector end faces for better transmission performance. Also offered are pre-filled foam swabs and 8 oz. dispensing bottles available in glass or plastic bottles. NOTE: All alcohol must be shipped by ground only and in regulated quantities. No export!



FOM-IA-4X6	1 case of 6 (4oz.) alcohol squeeze bottles	\$14.75
FOM-IA-1GX4	1 case of 4 gallons alcohol	\$118.20
FOM-IA-24X1	Alcohol - 24oz. bottle	\$7.45
FOM-IA-1GX1	1 Gallon Bottle of Alcohol	\$29.55
FOM-0106	Bi-furcated alcohol foam swabs (10 packs)	\$11.41
FOM-007PL	Automatic alcohol dispensing bottle (plastic)	\$6.95
FOM-007P	Automatic alcohol dispensing bottle (amber glass)	\$7.54
FOM-0068	1 Case of 6 (4oz.) Bottled Alcohol	\$16.95

# **Kim Wipes**

The fiber optic industry demands a lint – free product when used with alcohol for cleaning fiber and connector end faces.

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34-155	Kim Wipes – 1 box – 280 wipes	\$2.50
34-155C	Case of Wipes – 60 Boxes of 280 wipes	\$140.00

# **PR** Lint-Free Polyester Wipes

Precision Rated Optics mini-tub contains 90 perforated lint-free wipes, each wipe being 4" x 2" (10 cm x 5 cm). Each wipe can clean up to six fiber optic connectors or one bare fiber. Each mini-tub is approx. 3" in diameter and 3" tall (8 cm x 8 cm). Unlimited shelf life.



PRO-CW34

Lint-Free Polyester Wipes

\$10.45

## **SWABS**

Choose from wrapped swabs or general-purpose cotton swabs. The 2.5mm and 1.25mm swabs provide easy entry into bulkheads, mating sleeves and connector end faces to remove contaminants and debris.



FOM-25184	2.5mm Wrapped Swabs (5pk)	\$3.50
FOM-25183	2.5mm Wrapped Swabs (100pk)	\$40.00
FOM-25123	1.25mm Wrapped Swabs (5pk)	\$3.50
FOM-0005	2.5mm Mini Foam Swabs (50pk)	\$12.50
FOM-0006-100	General Purpose Cotton Swabs 1 Bag (100 Swabs)	\$12.50
MCC-S25	Microcare 2.5mm connector cleaning stick	\$32.73
MCC-S12	Microcare 1.25mm connector cleaning stk.	\$32.73
MCC-S16	Microcare 2.0mm & 1.6mm connector clean.	\$32.73
MCC-P25	Cleaning stick with a recessed nib	\$32.73

# Sticklers Connector Cleaner

Sticklers pump spray bottle of fast-drying, nonflammable, nonhazardous cleaner for all fiber tasks, such as cleaning connectors and cleaning before splicing. 85 grams, approximately 400+ cleanings.



MCC-POC03M Sticklers Connector Cleaner

# **Optic Prep Tissues**



\$17.33

A substitute for alcohol and Kim Wipes, Optic Prep contain a pre-moistened lens-grade tissue in foil wrap for cleaning optical fibers. The mild solvent is non-abrasive and stores easily in a tool kit.

CP410-1	Optic Prep Tissue Pack Box (1 Packet)	\$0.65
CP410	Optic Prep Tissue Pack Box (50pk)	\$27.65

# **QbE©** Cleaning System

The QbE© offers 200 3" x 3" lint–free wipes per package. Simply pull a wipe over the neoprene platen, which prevents end face scratching, and draw the connector over the wipe in a linear motion. Use as a dry cleaner alone, or as wet cleaner in conjunction with Electro-Wash. When combined with Electro-Wash, each QbE offers upwards of 300 cleanings per box.



QbE	QbE© Cleaning Lint–Free Wipes	\$52.15
FOM-ES810	Electro-Wash 5oz. Aerosol Can (PX)	\$13.00

# Electro-Wash® PX, NXO & MX

Electro-Wash® universal cleaners/degreasers are available in a variety of packaging options. They are effective in removing Icky Pic from loose tube cable, as well as cleaning ferrule end faces. The cleaner dries fast and leaves no residue. Electro-Wash PX & NXO are Ground Shipment Only. No Export!

er PX &	
ol Can (PX)	\$13.00

FOM-ES810	Electro-Wash 5oz. Aerosol Can (PX)	\$13.00
FOM-ES1210	Electro-Wash 12oz. Aerosol Can (PX)	\$23.77
FOM-ES110	Electro-Wash 1 Gallon Bottle (PX)	\$77.89
FOM-ES1607	Electro-Wash 12.5oz. Aerosol Can (NXO)	\$50.81
FOM-ES107	Electro-Wash 1 Gallon Bottle (NXO)	\$643.97
FOM-CP421	Electro-Wash Wipes – 25 wipes per box	\$55.76

# **Canned Air**

 Competitively priced and provides a tube that securely fits in nozzle. Removes particles from normally inaccessible areas. Plastic trigger nozzle style from Tech Spray now available.

 NOTE: Must be shipped by Ground Shipment only. No Export!

 FOM-1008
 Tech Spray Canned Air (10 oz.)

 MCC-AIR
 Big Blast (TM) Canned Air - 14oz.



\$12.85

\$13.80

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# CONSUMABLES & CLEANING PRODUCTS

# **PR** Fiber Optic Cleaning Cassette

• Connectors cleaned: SC, SC2, FC, ST, DIN, D4, MU, LC, MT	
More than 500 times/cartridge	
• Environment Operation Temperature -20 $^{\circ}$ C to 50 $^{\circ}$ C	

PRO-CT-001	Fiber Optic Cleaning Cassette	\$85.00
PRO-CT-004	Replacement Reel	\$25.00

# **Index Matching Gel**



The index matching gel provides an effective way of reducing Fresnel reflections, and decreasing power loss in connectors and mechanical splices. A liquid gel in a syringe is also available.

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FOM-0001V	Index Matching Gel (.4oz)	\$25.00
FOM-9006	Liquid Matching Gel (6g, Syringe)	\$14.50

# **IBC** Cleaning Tools

Designed for SC, ST and FC for UPC & APC polishes

	0 4	
9392	IBC Cleaner (2.5mm) Cleaning Tool	\$63.99
9393	IBC Cleaner (1.25mm) Cleaning Tool	\$63.99

# Ferrule Mate™ Cleaner

The FERRULE MATE<sup>™</sup> cleaner from Seikoh Giken effectively cleans ferrules in the field or on the production floor. It may be used for PC and APC 1.25mm/2.5mm ferrules for 600 swipes, with a cost as low as 10 cents per cleaning.

SFM-250	Ferrule Mate™ Cleaner (2.5mm)	\$65.00
SFM-125	Ferrule Mate™ Cleaner (1.25mm)	\$65.00

# **CLETOP** Cleaning Products

CLETOP and CLETOP-S Cleaning Cassettes and Cleaning Sticks are designed for a high degree of consistency and reliability when cleaning fiber endfaces. CLETOP cleaning products use a specially formulated dry cloth to remove dust, dirt, oil and other contaminants from ferrule surfaces. This cloth can be used without isopropyl alcohol and features anti-static properties to prevent dust from reattaching to the fiber after cleaning. Cost effective and easy to replace, the cassette reels can be used for up to 400 wipes.

#### What's The Difference Between CLETOP and CLETOP-S?

CLETOP-S is a recently improved version that features a more-ergonomic design, central push button operation for ambidextrous use and requires no tools when replacing reels. Both the original CLETOP and CLETOP-S provide the same quality and reliability of cleaning!

#### What's The Difference Between Type A and Type B?

- CLETOP Type A has two slots designed specifically for 2.5mm ferrules (accepts SC, SC2, FC, ST, DIN, D4 connector types).
- CLETOP Type B features open rectangular access to cleaning tape accepting all the connector types as Type A and more: MU, LC, MT, MPO & MT-RJ (without pins), E-2000 and BICONIC.

#### **ORDERING INFORMATION CASSETTES & REELS**

14110501	CLETOP-S Type A Cassette with Blue Tape	\$93.80
14110611	CLETOP-S Type B Cassette with White Tape	\$93.80
14110601	CLETOP-S Type B Cassette with Blue Tape	\$93.80
14100610	CLETOP Type B Cassette with White Tape	\$107.00
14100600	CLETOP Type B Cassette with Blue Tape	\$107.00
14100510	CLETOP Type A Cassette with White Tape	\$107.00
14100500	CLETOP Type A Cassette with Blue Tape	\$107.00

# **STICKLERS** Fiber Optic Cleaning Kit

This convenient kit includes all the cleaning supplies necessary for cleaning 2.5mm and 1.25mm fiber optic connections.



#### **Kit Includes**

MCC EVO2	STICKLERS Eiber Optic Cleaning Kit <b>\$107</b>	41	
	Heavy-duty, weather-resistant, soft-sided polyester bag with a zipper closure. The bag is 9" wide x 5" deep x 5" tall (1)		
	High-intensity, heavy-duty LED inspection flashlight. (1)		
MCC-S12	Microcare 1.25mm connector cleaning stick (20) swab		
MCC-S25	Microcare 2.5mm connector cleaning stick (30) swabs		
MCC-FA1	The Flat Pack CleanWipes (25) packs		
MCC-WFW	Lint-Free Polyester Wipes: (2) Tubs		
МСС-РОС03М	Fiber Optic Splice & Connector Cleaner: (2) cans		

MCC-FK03STICKLERS Fiber Optic Cleaning Kit\$107.10

# SqueekyKleen (TM) Telcom Cleaner

Cleans and fans fiber in two wipes without alcohol, saving time and money. Hear the difference! No follow-up with alcohol required to get fibers squeaky clean and separated when prepping for splicing. SqueekyKleen™ is less harsh on hands and reduces chemical odors and vapor concentrations to a minimum in splice trailers and vaults. SqueekyKleen's™ unique formulation works to remove pik from the entire surface of loose-tube or ribbon fibers, leaving no residue. SqueekyKleen™ helps keep splice equipment clean of contamination for better fiber alignment and splice quality. Safe on acrylate and Mylar (R).



TC-128	Gal. SqueekyKleen (TM) Telcom Cleaner	\$36.46
TC-35LF	1-quart (.95 liter) bottle with flip top	\$14.00
TC-1	SqueekyKleen Telcom Cleaner Satur. Wipes	\$1.65

#### **ORDERING INFORMATION CLETOP STICKS**

FOM-0401-	05 CLETOP Sticks, 1.25mm (5 pack)	\$5.43
FOM-0400-	<b>05</b> CLETOP Sticks, 2.5mm (5 pack)	\$5.43
14100401	CLETOP Sticks, 1.25mm (200 pack)	\$230.00
14100400	CLETOP Sticks, 2.5mm (200 pack)	\$230.00
ORDERI	NG INFORMATION REPLACEMENT RE	ELS
14110710	CLETOP-S Replacement Reel (White Tape)	\$28.95
14110700	CLETOP-S Replacement Reel (Blue Tape)	\$28.95
14100710	CLETOP Woven Film Replacement Reel (White)	\$28.95
14100700	CLETOP Woven Film Replacement Reel (Blue)	\$28.95

# **PR TK-CLEAN** Cleaning Kits



**PRO-TK-CLEAN** 



## PRO-TK-CLEAN-01



PRO-TK-CLEAN-02

## **Cleaning Kits**

Item Code	Description	PRO-TK-CLEAN	PRO-TK-CLEAN-01	PRO-TK-CLEAN-02
PRO-BAG-LOGO	9" x 12" Black Nylon Tool Bag w/FOM Logo	Х	Х	х
FOM-CT2-002-01	Cleaning Stick Wrapped 2.5mm (100 Pack)	Х	Х	Х
FOM-CT2-002-02	Cleaning Stick Wrapped 1.25mm (100 Pack)	X	Х	Х
CP410-1	Optic Prep Pre-saturated Pads (1 Packet)	Х	Х	Х
FOM-CP421-1	Electro-Wash Wipe (MX) (1 Packet)	X	Х	Х
TC-1	American Polywater SqueekyKleen Wipes	Х	Х	Х
AC-2LP	American Polywater AquaKleen Pump-Spray	Х	Х	Х
QC-2LP	American Polywater QuickKleen Pump-Spray	Х	Х	Х
PRO-CT-001	Fiber Optic Cleaning Cassette	Х	Х	Х
PRO-CT-004	Replacement Cassette Reel	Х	Х	Х
PRO-LFW-100	Lint-free Wipes (100ct)	X	Х	Х
PRO-CS-125	Quick Click 1.25mm (LC)		Х	Х
PRO-CS-250	Quick Click 2.5mm (SC)		Х	х
HM-C400S	400x Fiber Scope			Х

## **ORDERING INFORMATION** Cleaning Kits

	<u>~</u>	
FOM-TK-CLEAN	Basic Fiber Optic Cleaning Kit	\$241.70
FOM-TK-CLEAN-01	Deluxe Fiber Optic Cleaning Kit	\$341.41
FOM-TK-CLEAN-02	Deluxe Fiber Optic Cleaning Kit w/ 400x Scope	\$508.26

# **PR**<sup>™</sup> **Quick-Click**<sup>™</sup>

The PRO brand Quick-Click<sup>™</sup> cleaning tool is designed to easily remove dirt and contaminants from both fiber optic connectors in bulkheads and unmated fiber optic connectors. The Quick-Click<sup>™</sup> will save you time and money by cleaning both sides of a mated pair with one tool, without having to disconnect both fibers.

PRO-CS-250	PRO Quick Click (2.5mm) Cleaning Tool	\$63.99
PRO-CS-125	PRO Quick Click (1.25mm) Cleaning Tool	\$63.99



Designed for SC, ST and FC for UPC & APC polishes

Fiber • ptic.com

# STRIPPERS

# **NO-NIK®** Fiber Optic Strippers

22 different NO-NIK tools in sizes ranging from 102 to 1,372 microns. Accurate to –0mm, + .0127mm. Exclusive centering device positions fiber for precise scoring and removal of buffer coating. Cutting blades made from razor quality steel score the buffer completely. Color-coded, cushion-grip handles for quick identification. Plastic heads, which make contact only with the buffer, center and support your work on both sides. Back-up blades support the cutting blades, nest positively, and "lock up" when the tool is closed to maintain perfect concentricity. Buffer being removed acts as guide and protection for the fiber. Stripping blade diameter clearly marked on plastic handle. Arrow indicates direction pressure should be applied when stripping on head.



# **NO-NIK®** Fiber Optic Stripping Kits

This sturdy No-Nik Fiber Optic Stripper Kit is available with the most popular sizes, 203 microns (Red Handles), 254 microns (Light Blue Handles) and 305 microns (White Handles). The vinyl case protects these precision tools and provides convenient safe storage.



#### **NN03** Fiber Optic Stripper Kit, 4" x 6-1/4" (102mm x 159mm) **\$123.45**

- NO-NIK Fiber Stripper available the following minimum cutting diameters: 152, 175, 203, 254 & 305 microns.
- 86 1/2SF High Leverage Kevlar Shear perfect solution for trimming back the DuPont Kevlar
- 821 Multi-Wire Stripper/Cutter The 821 removes the outside jacket from fiber optic cable.
- A vinyl case protects the tools and provides convenient safe storage.



NN152KIT	152 micron Stripping Kits, 4" x 6-1/4" (102mm x 159mm)	\$90.03
NN175KIT	175 micron Stripping Kits, 4" x 6-1/4" (102mm x 159mm)	\$90.03
NN203KIT	203 micron Stripping Kits, 4" x 6-1/4" (102mm x 159mm)	\$88.76
NN254KIT	254 micron Stripping Kits, 4" x 6-1/4" (102mm x 159mm)	\$88.76
NN305KIT	305 micron Stripping Kits, 4" x 6-1/4" (102mm x 159mm)	\$88.76

# **CLAUSS** CFS-2 Fiber Stripper

For stripping 250 micron buffer coating to expose 125 micron cladded fiber. 1mm diameter stripping hole at tip of tool can be used to strip the fiber jacket. 140µm diameter hole and V-opening in blade allows removal of 250 micron buffer coating from 125µm fiber. Pre-set at the factory - no adjustments needed. Will not scratch or nick glass fiber. All stripping surfaces are manufactured to precise tolerances to assure clean, smooth strips. Comfort-grip, ergonomic handles lock to hold tool closed when it is not in use.



\$25.17

CFS-2 Dual Hole Fiber Stripper, 125µm, 2-3mm Jackets

HANDI F MINIMUM STRIPPING PART # PRICE COLOR **BLADE DIAMETER (mm)** NN102 102mm (.004 in) \$37.01 Navy NN127 Silver 127mm (.005 in) \$37.01 NN152 152mm (.006 in) \$40.44 Gold NN175 Mustard 175mm (.007 in) \$40.44 NN203 Red 203mm (.008 in) \$37.96 NN254 254mm (.010 in) \$36.85 Lt. Blue NN305 White 300mm(012)\$37.96 NN1118 (For Plastic Fiber) 1.118mm (.044 in) \$29.63 Brown NN1372 (For Plastic Fiber) Clear 1.372mm (.054) \$30.00

## **MILLER** Fiber Strippers

For stripping 250 micron buffer coating from 125 micron optical fiber. Precision diameter hole and V-opening in blade allow for accurate buffer coating removal. Factory set, requires no adjustments. Prevents scratching or nicking of optical fiber. All cutting surfaces are precision formed, hardened, tempered and ground assuring precise buffer removal.

PART #	CLADDING	DIAMETER	PRICE
FO-103-S	125µm	.005 in	\$43.84
FO-103-S-100	80-100µm	.003004 in	\$67.80
FO-103-S-140	140µm	.0055 in	\$67.80
FO-103-S-150	150µm	.006 in	\$67.80
FO-103-S-162	162µm	.0065 in	\$67.80
FO-103-S-175	175µm	.007 in	\$67.80
FO-103-S-187.5	187.5µm	.0075 in	\$67.80
FO-103-S-200	200µm	.008 in	\$67.80
FO-103-S-225	225µm	.009 in	\$67.80
FO-103-S-250	250µm	.010 in	\$67.80
FO-103-S-280	275-280µm	.011 in	\$67.80
FO-103-S-300	300µm	.012 in	\$67.80
FO-103-S-525	525µm	.021 in	\$67.80

## **MILLER** Dual-Hole Fiber Strippers

#### FO-103-D-J

New Dual Hole models offer the same quality of the standard FO 103-S fiber tool coupled with a second hole. Second hole is for stripping 2-3mm fiber jackets and standard 125 fiber stripping (250 micron removal to 125 micron).

FO-103-D-J Dual Hole Fiber Stripper, 125µm, 2-3mm \$48.81

#### FO-103-D-250

Second hole is for stripping 900 micron tight buffer down to 250 micron buffer coating and standard 125 micron fiber stripping (250 micron removal to 125 micron) – allows longer stripping lengths without damaging the fiber. Easy-to-read stripping diagrams imprinted on handles.

FO-103-D-250 Dual Hole Fiber Stripper, 125µm & 250µm \$72.50

## MILLER Tri-Hole Fiber Strippers

New three-hole model performs all common fiber stripping functions in one compact tool.

- Hole for removal of 2 to 3mm fiber jackets
  Removes 900 tight buffer to 250 micron buffer coating
- Standard 250 to 125 micron stripping
- EQ 103 T 250 L Tri Holo Eibor Strip

FO-103-T-250-J	Tri-Hole Fiber Stripper, 125µm, 250µm, 2-3mm	\$77.48
FO-103T-400-250	Tri-Hole Fiber Stripper, 250µm & 400µm	\$75.22

Fiber Optic.com

# **JONARD** Fiber Stripper 3 Hole

Three hole Fiber Optic Stripper model performs all common fiber stripping functions. This Fiber Optic Stripper strips the 1.6-3 mm fiber jacket down to the 600-900 micron buffer coating. The second hole strips the 600-900 micron buffer coating down to the 250 micron coating and the third hole is used to strip the 250 micron cable down to the glass fiber without nicks or scratches.



JIC-375 Fiber Optic Stripper Three Hole

#### \$24.00

JIC-175

## **IMPERIAL** Strippers

With Ergonomic, non-slip comfort grip handles, this "two-in-one" tool is an industry standard manufactured in the USA.



IFO-1200	Duplex Cable Jacket Stripper	\$38.30
IFO-1212	Ribbon Fiber Jacket Stripper	\$39.78
IFO-1300	300mm Jacket and 900/250µm Buffer Stripper	\$28.72
IFO-1500	Duplex Zipcord Buffer Stripper	\$38.76
IFO-1520	"OSP" Fiber Buffer Stripper	\$32.13

## **AFL** De-Ribbonizer

The FST-12 Fiber Separation Tool is used to quickly, accurately and reliably split ribbons into sub-groups or individual fibers. The ergonomic FST-12 design enables safe and reliable, one-handed operation for use in diverse fiber deployment environments, such as aerial and remote-site applications.



**FITEL** De-Ribbonizer

S014012

The S220A uses two finely positioned blades to shaves the matrix off the top and bottom of ribbon fiber while leaving the individual fiber jackets untouched. After the matrix is removed, the fibers separate out easily by hand. For use with 300 and 400µm ribbons of 2 to 12 strands. Blade life is 1,000 separations.

AFL De-Ribbonizer



S220A Fitel De-Ribbonizer

## SUMITOMO De-Ribbonizer

Sumitomo's FTA-2 is used for ribbonizing single fibers over a short length and for allowing multiple single fibers to be spliced simultaneously on a ribbon splicer.

FTA-2	Sumitomo De-Ribbonizer

# BUFFFR & JACKFT STRIPPFRS

# **JONARD** Ergonomic Fiber Stripper

Used for stripping the 250 micron coating from the 125 micron optical fiber. Preset at the factory so no adjustments are necessary, this unique Ergonomic design prevents nicks or scratches on the optical fiber. The stripping blades are ground and hardened for durability and long life. Yellow plastic formed handles, tool is 6" long



# JONARD FIBER STRIPPER & SCISSOR KIT



TK-375 FIBER STRIPPER & SCISSOR KIT

# MICRO STRIP Tool Kit

Kit includes the JIC-375 Fiber Optic

Stripper, ES-1964 Electrician's Scissor, and convenient molded plastic pouch(with belt loop).

The Micro Strip Tool Kit provides precision fiber tools with interchangeable/replaceable blades and tube guides. They provide excellent removal of both the buffer and jacket of fiber optic cable without nicking or damaging the fiber



MS-FOK1	Micro Strip Tool Kit (3 blades for 125, 140, 230µm)	\$155.13
MS-1FS	Blade Holder	\$19.50
MS-1RB06S	Replacement Blade-Violet (Strips to 125µm)	\$35.00
MS-1RB12S	Replacement Blade-White (Strips to 250µm)	\$35.00
MS-1RB21S	Replacement Blade-Royal (Strips to 500µm)	\$35.00

# **FITEL** S210 Stripper

The S210 Single Fiber Stripper is designed to strip 250µm and 900µm diameter fiber. S210 stripper features a 20mm wide base with the blade located in the center to ensure safe longitudinal stripping.



S210 Fitel Single Fiber Stripper \$115.00

# **FITEL** Ribbon Splitter

The FITEL S233 Ribbon Splitter splits 4, 8, and 12-fiber ribbons quickly and accurately. The unit features a compact design for field use and an all-metal body for maximum durability. Accommodates interchangeable fiber guides for different ribbon sizes and no tools are required to change fiber guides.

S233A	Fitel Ribbon Splitter 4 Fiber Ribbon	\$885.00
S233B	Fitel Ribbon Splitter 8 Fiber Ribbon	\$885.00
S233C	Fitel Ribbon Splitter 12 Fiber Ribbon	\$990.00

iber(•ptic.com

Buffer & Jacket Strippers

\$670.00

\$795.00

\$1,146.08

# CABLE CUTTERS & STRIPPERS

# **CORNING** Mid-Access Tool

The Corning Cable System Mid-Access Tool allows for mid-entry access in 2.4 to 3mm buffer tubes. Also available is a tool for 5 to 24mm buffer tubes

Fiber Optic.com



OFT-000	Corning Cable System Mid-Access Tool for 2.4mm - 3.0mm Tubes	\$309.34
OFT-001	Replacement Blade for OFT-000	\$22.14
UAT3-000	Corning Cable System Mid-Access Tool For 5.0mm - 24mm Tubes	\$713.07
UAT3-BLADES	Replacement Blade for UAT-3000	\$81.88

# MILLER MSAT: Mid-Span Access Tool

Quickly and easily access fibers in 2, 2.5 and 3mm buffer tubes in a mid-span location without fiber damage. All blades precisely factory mounted in tube slitting channels with no adjustment required by the installer. Tool design incorporates buffer tube size gages on the tool body for ease of selecting proper tube slitting channel. Convenient spring loaded lever opens and closes the tool and lever becomes flush with the top of the tool body when closed. For use with the following diameter buffer tubes: 2.0mm 1.8-2.2 mm (0.071" - 0.086") 2.5mm 2.3-2.8 mm (0.090"-0.110") 3.0mm 2.8-3.2 mm (0.110" - 0.126"). Made in the U.S.A.



\$262.49

# ACS Armored Cable Slitter

The ACS Tool is designed to work on jacketed and armored multi-fiber cable. Its main purpose is to gain midspan access to fiber optic conductors by slitting the outer jacket and armor on cables. The tool is designed with a precision adjustable blade to avoid damage to the fibers. The tool works on a cable diameter range of 5/16" - 1-1/8" (8mm -- to 015"/F F-The blade can be coi



28.6mm). The blade can be set up to .215 (5.5mm) deep.		
ACS	Armored Cable Slitter	\$144.55
CB-251K	Replacement Blade Assembly	\$41.03

## **SMART-STRIP** Cable Stripper

Versatile and compact tool suitable for all types of standard insulation. Produces an accurate cutting depth to any standard insulated size of wire or cable in the 0.75 - 10mm (0.03 to 0.39 inch) range. Strips UTP and STP data network cable.

SMART-STRIP



## JONARD CST-1900: ROUND CABLE STRIPPER

The CST-1900 is designed for fast and precise jacket removal of PVC, rubber, PE and other jacket materials, and works well on round cables with diameters ranging from 3/16" to 1-1/8" (4.5 - 29 mm). This is a Triple Action Tool, cutting longitudinally for end stripping, spiral for end stripping and mid-span cuts, and circular for jacket removal

Data Cable Stripper



CST-1900	CST-1900: ROUND CABLE STRIPPER	\$50.35
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**RCS-114** RCS-158

# MILLER Round Cable Strippers

MSAT: Mid-Span Access Tool

These two tools were designed for fast, safe and precise jacket removal of PE, PVC, rubber, and other jackets. RCS-114 for smaller diameter cables: 0.178 to 1.14 inches (4.5 - 29mm). RCS-158 for larger diameter cables: 0.75 to 1.58 inches (19 - 40mm). "Tri-Action Strip" capability. Rotary cut to a longitudinal cut along the cable length for end stripping. Spiral cut for mid-span stripping. Spiral cutting features provide easier removal of tougher jackets. Spring-loaded cable brace firmly secures cable to the blade for controlled cutting action. Blade depth can be regulated by simply turning the blade housing.

RCS-114	138mm (5.43 in), Round Cable Stripper	\$46.07
RCS-158	153mm (6.02 in) , Round Cable Stripper	\$67.75
CB-231	Replacement Blade	\$10.32

Cable stripper for outer jackets and insulations from 0.18 to 1.12 inches (4.5 to 28.5mm) O.D. Stripping action is both circumferential, then longitudinal for removal of insulation section at the end or mid span of wires. Adjustable depth up to 0.12 inch (3mm) cutting depth Chisel point blade for harder coverings is standard; spherical blade design for softer insulation is optional. Handy spring-loaded ripping blade at base of tool to facilitate insulation removal. Solid construction for rugged applications.

МК02	Round Cable Jacket Stripper with Hook Blade	\$26.18
39391	Spherical Cutting Replacement Blades (set of 5)	\$23.21
39392	Replacement Chisel Point Blades (set of 5)	\$26.19

## **CABLEMATIC** Drop Cable Cutters

Designed to cut and strip solid and stranded cooper and aluminum conductor. Precision, high quality carbon steels construction. Preformed rounded jaws automatically position the cable for optimum cutting. Designed to minimize flattening of the cable end.



# **JONARD** High Leverage Cutters

High leverage design for superior cutting ability. Crafted for heavy-duty wire cutting and made of specially forged alloy steel designed for strength and cutting ability



MK02

\$24.36	JIC-63050	High Leverage Cable Cutters
\$35.50	JIC-683	Lineman's B Side Cut Pliers
\$43.48	JIC-2288	High Leverage Diagonal Cutter
	\$35.50	\$35.50 JIC-683



CC22

CC38

CC60

82

80785

Cable Cutter, up to .350 in. (8.

Cable Cutter, up to .430 in. (1)

\$16.50

\$17.25

\$16.50



# SHEARS, SCRIBES & TWEEZERS

## **KEVLAR®** Shears

FOKC Designed to cut Kevlar® strength members in fiber optic cables.

**861/25F** High-leverage tool for cutting, trimming and slicing through fibers and other tough industrial and electronics materials.

**KC699** Soft, cushioned oversized bows for operator comfort. Blades are hardened stainless steel with a fine serration on one blade to grip Kevlar fibers and prevent slipping while cutting.

**KS-1** Lightweight shears ideal for cutting Kevlar strength members found in fiber optic cable construction.



#### **ORDERING INFORMATION**

FOKC	Fiber Optic Kevlar® Cutter	\$26.31
861/2SF	Electrical Shears - Serrated with Grips	\$23.72
КС699	Kevlar® Shears. Length 184mm (7.25")	\$13.50
KS-1	Kevlar® Shears. Length 140mm (5.5")	\$13.71
JIC-186	Kevlar Shears - Serrated w/Grips (6")	\$13.25

# JONARD Cable Splicing Knife

Features a non-slip easy grip ergonomic handle made from TPR (thermoplastic rubber) for better control and reduced hand fatigue. Blade length is 1¾" and overall length is 6¼"



## TWEEZERS



## JONARD Scissors

**ES-1964ERG** Can cut 12 AWG stranded, 16 AWG solid. With a broader unique ergonomically designed comfort handle offering greater cutting leverage.

**ES-1964** Notched to strip 19 and 23 AWG wire and one blade is serrated. A scraper and file are on the back of the blade. Holds edge even when used on fiber and kevlar based cables



## ORDERING INFORMATION

ES-1964ERG	Ergonomic Electrician Scissors	\$11.85
ES-1964	ELECTRICIAN'S SCISSORS	\$10.10

# JONARD Three Piece Splicer's Kit

This compact kit contains a special purpose ergonomic cable splicer's knife, scissor and leather pouch. The knife features a short 1 3/4" tough, cutlery-steel blade and a non-slip handle. The scissors are made of high carbon steel with scraper and file on one sides plus 2 stripping notches.. Both items fit securely in the leather pouch which can be mounted on belts up to 2" wide.



\$27.25

83

TK-400 Th

Three Piece Splicer's Kit

# Scribes

	CS-3	IO-DE
CS-30-DE	Double Edge Carbide Scribe	\$51.95
CS-30-DE-R	Double Edge Carbide Replacement Blade	\$39.22
CS-30-W	30° Wedge-Carbide Tip	\$38.92
DS-60-C	60° Cone Angle-Diamond Tip Retractable	\$38.37
DS-90-W	90° Wedge Angle-Diamond Tip Retractable	\$78.06

## **ORDERING INFORMATION**

AA-SA	Strong fine tip, Stainless steel tweezers, 4 7/8"/ 124mm	\$11.33
4SA	Extra fine tip, Stainless steel tweezers, 4 7/8"/ 124mm	\$12.15
4C	Extra fine tip, Chrome-plated carbon steel tweezers, 4 1/4"/ 108mm	\$11.72
5-SA	Needle sharp tips, Stainless steel tweezers, 4 1/4"/ 108mm	\$15.32
7SA	Extra fine curve tips, Stainless steel tweezers, 4 1/2"/ 114mm	\$14.02
7-C	Extra fine curve tips, Chrome-plated carbon steel tweezers, 4 1/2"/ 114mm	\$14.73
231	Serrated inside tips, Stainless steel tweezers, 4 3/4"/ 121mm	\$11.80
226	Serrated inside tips, Chrome-plated carbon steel tweezers, 4 3/4"/ 121mm	\$10.78

Fiber ptic.com

# TOOLS

# JONARD 5 Piece Telecom Installers Kit

Kit includes the M-216C/EX Can Wrench, KN-7 Ergonomic Cable Splicing Knife, ES-1964 Electrician's Scissor, JIC-22035 Probe Pick and the H-50 Pouch (made of durable PVC material with metal clip).



TK-50

Fiber Optic.com

Five Piece Telecom Installers Kit

#### \$41.25

# **JONARD** Magnetic Cable Retrieval System

A magnetic cable retrieval system which couples the cable with the pulling device through drywall, allowing the user complete control. Designed for both residential and commercial applications.



MP-700 Magnetic Cable Retrieval System

\$153.05

# JONARD Hollow Shaft Nut Drivers

These are full length hollow shaft nut drivers intended for working with long bolts. They are designed with cushion gripped ergonomic color coded handles. Handles provide greater torque and user comfort. Overall length 7"



# JONARD Magnamole Magnetic Cable Guide

Quickly threads wire and cable through cavity walls and void spaces. Threads at an angle and safely through other wire and cable obstacles. Saves time, saves money, and sharply reduces the risk of accidents.



MM-800	Magnamole Magnetic Cable Guide	\$33.25
MM-110	Magnamole Replacement Magnets (Red) .169" to .205" (Blue) .230" to .295"	\$14.85
MM-120	Magnamole Replacement Magnets (White) .145" to .169" (Gray) .173" to .201" (Black).205" to .232"	\$14.85

## ND-631

Hollow Shaft Nut Drivers

\$42.90

# JONARD 7 Piece Insulated Screwdriver Set

7 Piece: 3 Phillips and 4 Slotted screwdrivers

**11Piece:** 3 Phillips, 4 Slotted, Linemans Plier, Long Nose Plier, Diagonal Plier, Wire Stripper



TK-70INS	7 Piece Insulated Screwdriver Set	\$36.10
TK-110INS	11 Piece Insulated Tool Kit	\$116.25

## **JONARD** FIBER OPTIC CRIMPER WITH DIE

This fully ratcheted crimper offers exceptional performance. Designed for minimal closing force (higher crimp force produced with lower hand force), plus there is no break-over hand force making the last click easily achievable. The head is angled to lessen the need to bend the wrist awkwardly, die changes are made quickly and easily, ergonomic handles are dual component with a soft rubber insert plus the tool includes a built in safety release mechanism. Very durable steel housing accommodates both Fiber Optic and Coax dies.

Crimps FC, ST, SC, LC, SMA, and MT-RJ Connectors .151"/.178"/.134"/.139"/.190", 3.84mm/4.52mm/3.40mm/3.53mm 4.83mm

UC-8039 FIBER OPTIC CRIMPER WITH DIE

\$57.30

877-529-9114 sales@fiberoptic.com

## **CORNING** UniCam® Connectors & Kits

Corning Cable Systems offers several tool kits for installation of UniCam Connectors. The flagship tool kit is the UniCam Pretium™ Tool Kit (TKT-UNICAM-PFC), a thoughtfully designed tool kit that virtually eliminates human variability from installation. The TKT-UNICAM-PFC includes a lightweight, handheld installation tool with an immediate go/no-go feedback signal, providing unmistakable confirmation of a successful termination. The kit's highperformance cleaver has an integrated fiber scrap bin and a dual-clamp precision hold for the field fiber, with a diamond blade to achieve a superior cleave. The UniCam Pretium Tool Kit can be used with multimode or single-mode LC, SC and ST<sup>®</sup> Compatible UniCam Connectors (standard and Pretium-performance), and is required to achieve Pretium-performance specifications for UniCam Pretium-Performance Single-Mode Connectors.

nne	ectors &	Kits 💦 💦 💦
	TKT-UNICAN	I-PFC Kit Includes
	FBC-015	Pretium Fact Cleaver w/ Diamond Blade and Built-In Fiber Scrap Container FBC-015
	TL-UCP	UniCam Pretium™ Installation Tool with Integrated CTS
	100294-01	5" Electrician's Scissors with Notches TL-UCP
n	3201007-01	Crimp Tool
	3206001-01	6" Wire Fiber Stripper
	2104498-01	Plastic Refuse Container
<	2014493-01	Package of Corning Wipes
	In Kit Only	Retractable Permanent Marker
	2014494-01	Bottle of Corning Fiber Cleaning Fluid
<u>,</u>	VFL-A125	LC 1.25 mm Ferrule Adapter
	VFL-A250	SC and ST <sup>®</sup> Compatible 2.5 mm Ferrule Adapter
	2104417-01	1.5 mm Ferrule Cleaning Sticks (10/pack)
	2104255-01	SC and ST Compatible 2.5 mm Ferrule Cleaning Sticks (10/pack)
	2104502-01	"Dual-Hole" Miller Tool Fiber Stripper (for 900 µm and 250µm fiber) TKT-UNICAM-PFC
į	02-001860-001	Unicam Pretium Tool Bag with Integrated Waste Receptade and Organized Foam Insert Interior

#### **TKT-UNICAM Kit Includes**



The standard UniCam Connector Installation Tool Kit (TKT-UNICAM) is a basic installation tool kit and can be used to terminate all single- and 2-fiber UniCam Connector styles (SC, LC, ST compatible, FC and MT-RJ connectors). UniCam Pretium-Performance Multimode Connectors (SC, LC and ST compatible) can achieve Pretium-performance with the use of this tool.



## **ORDERING INFORMATION** CONNECTORS

PART NUMBER	STYLE	TYPE	FERRULE	FIBER SIZE	PRICE
95-000-50	ST	MM	Composite	62.5/125µm	\$11.34
95-050-51	ST	MM	Zirconia	50/125µm	\$14.74
95-000-51	ST	MM	Zirconia	62.5/125µm	\$14.75
95-200-51	ST	SM	Zirconia	8.3/125µm	\$19.29
95-000-41	SC	MM	Zirconia	62.5/125µm	\$14.60
95-200-41	SC	SM	Zirconia	8.3/125µm	\$19.29
95-000-40	SC	MM	Composite	62.5/125µm	\$12.00
95-050-41	SC	MM	Zirconia	50/125µm	\$12.65
95-000-61	FC	MM	Zirconia	62.5/125µm	\$11.65
95-200-61	FC	SM	Zirconia	8.3/125µm	\$16.45
92-001-97-P-E	MT-RJ	MM	Composite	62.5/125µm	\$15.35
95-000-99	LC	MM	Zirconia	62.5/125µm	\$16.43
95-050-99-X	LC	MM	Zirconia	50/125µm	\$16.25
95-200-99	LC	SM	Zirconia	8.3/125µm	\$19.63

## ORDERING INFORMATION CONNECTOR KITS

TKT-UNICAM-PFC	UniCam® Pretium™ Tool Kit	\$1,781.25
TKT-UNICAM	Standard UniCam Connector Installation Tool kit	\$725.15

## **OPTIONAL ACCESSORIES** AND SUPPLIES

TL-UCP	UniCam® Pretium™ Installation Tool	\$1,395.00
TEST-UNICAM-CTS	Converts existing TKT-UNICAM to include CTS option	\$425.00
VFL-AKIT	UniCam® LC (1.25mm), SC & ST (2.50mm) VFL ferrule adapters	\$123.95

## Also available in 25 packs Call for pricing

Fiben

## AFL Fast Connectors



AFL's new FAST connectors are pre-polished, field installable connectors that eliminate the need for hand polishing in the field. Feature pre-stubbed factory polished ferrule that couples to the fiber being terminated by precision mechanical alignment and insures low loss with a proprietary gel. Each FAST connector comes with a factory-installed wedge clip that holds the clamping device open while a fiber is inserted. Once fiber is in place, the wedge clip is removed and discarded. Fiber is terminated and ready to be plugged in. The FAST tool kit provides all necessary tools for fiber preparation, two available cleavers: 92208-TB (for multimode connectors) and CT-30A (for singlemode connectors).

PART NUMBER	FIBER TYPE	COLOR	CABLE SIZE
FAST™ SC Connecte	or (packaged 6 per pack	age)	
FAST-SC-MM50-6	MM 50/125	Black	3.0mm, 2.0mm, 900µm, 250µm
FAST-SC-MM625-6	MM 62.5/125	Beige	3.0mm, 2.0mm, 900µm, 250µm
FAST-SC-SM-6	SM	Blue	3.0mm, 2.0mm, 900µm, 250µm
FAST-SC-MM50L-6	MM 50/125 OM3 (10 gig)	Aqua	3.0mm, 2.0mm, 900µm, 250µm
FAST™ ST Connecto	or (packaged 6 per pack	age)	
FAST-ST-MM50-6	MM 50/125	Black	900µm, 250µm
FAST-ST-MM625-6	MM 62.5/125	Beige	900µm, 250µm
FAST-ST-SM-6	SM	Blue	900µm, 250µm
FAST-ST-MM50L-6	MM 50/125 OM3 (10 gig)	Aqua	900µm, 250µm
FAST™ LC Connecto	or (packaged 6 per pack	age)	
FAST-LC-MM50-6	MM 50/125	Black	3.0mm, 2.0mm, 900µm, 250µm
FAST-LC-MM625-6	MM 62.5/125	Beige	3.0mm, 2.0mm, 900µm, 250µm
FAST-LC-SM-6	SM	Blue	3.0mm, 2.0mm, 900µm, 250µm
FAST-LC-MM50L-6	MM 50/125 OM3 (10 gig)	Aqua	3.0mm, 2.0mm, 900µm, 250µm
VISUAL FAULT IDEN	TIFIERS		
VFI2-00-0900PR	AFL Noyes VFI 2		
VFI3-00-0900PR	AFL Noyes HiLite		
2900-50-0010MR	1.25mm Universal Ad	dapter	

#### Features

- Pre-stubbed, factory-polished ferrule
- No epoxy required
- Precision mechanical alignment insures low loss
- Fiber can be reseated
- 3.0mm, 2.0mm, and 900µm boot
- provided with each connector
- VFI can be used to confirm fiber is
- installed properly
- Meets TIA/EIA 568A performance requirements
- Meets TIA/EIA 604 (focis) connector interface requirements

CS001201-Kit	SM/MM FAST Tool Kit	\$1,464.69	v
	w/ CT-30A Cleaver		2

# **FAST™ Connector Universal Tool Kit**

The FAST Connector Universal Tool Kit provides all the necessary installation tools required for fiber preparation of 250µm or 900µm fibers, or 900µm, 2mm, or 3mm cordage forAFL's pre-polished FAST connectors. Included in the kit is the CT-30A universal multimode/single-mode cleaver, AFL's premier cleaver with a 16-position blade and builtin fiber scrap collector. The FAST Connector Universal Tool Kit carrying case contains all the industry standard termination tools required for fiber preparation, as well as, adequate storage for carrying extra FAST connectors for on-site convenience.

#### Features

- Pren
- Industry standard fiber preparation tools
- Compact design, flexible yet rugged case
- Complete instructions provided
- **Applications**
- Premise environments
- LAN Fiber to the Desk environments
- Patch panel/wiring closets
- FTTX applications
- Quick repair/replacement areas

FAST™ Connector Universal Tool Kit ——— CS001201-KIT \$1,464.69					
S014080	CT-30A Universal Cleaver	FPF1-00-0900 Fiber Preparation Fluid			
CS007780	FAST SC Assembly Tool	FM000413	Lint-free Cloth Wipes		
CS007779	FAST LC Assembly Tool	C015830	Marker Pen		
S014704	3mm Cable Clamp	CS007701	Installation Instructions		
S014705	2mm Cable Clamp	CS001203	Strip Length Template		
CS004442	0.25/0.9mm Cable Clamp	CS001204	Assembly Video (CD)		
CS001205	Fiber Stripper	CS001202	Carrying Case		
C095257	Kevlar Scissors				





877-529-9114 sales@fiberoptic.com

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Quick Termination Connectors

## **TYCO/AMP** Light Crimp<sup>™</sup> Plus

AMP LightCrimp Plus ST, SC, LC and MT-RJ connectors provide easy and quick fiber terminations. There is no epoxy curing or polishing required. All connectors feature a Zirconia ferrule and a typical loss of 0.3dB.

#### **ORDERING INFORMATION** CONNECTORS

PART NUMBER	STYLE	ТҮРЕ	PRICE
492642-1	ST Simplex	Multimode, 62.5µm	\$8.65
492643-1	SC Simplex	Multimode, 62.5µm	\$9.35
1278082-1	ST Simplex	Multimode, 50µm	\$8.65
1278079-1	SC Simplex	Multimode, 50µm	\$9.35
1754483-1	LC Simplex	Multimode, 62.5µm	\$11.35
1754483-2	LC Simplex	Multimode, 50µm	\$11.35
1754482-1	LC Simplex	Singlemode, 9/125µm	\$17.50
1754485-1	LC Duplex	Multimode, 62.5µm	\$22.75

LightCrimp™	Tool Kit Includes	Contraction of the local division of the loc
58535-1	Pro-Crimper Hand Tool	
492783-1	LightCrimp Plus SC Die Set	
492622-1	LightCrimp Plus ST Die Set	
FOM-0021	Buffer Stripper Tube	
45-352	Fiber Stripper	CT - Martine
FOM-9809	Kevlar Cutters	Carling and the second second
1278023-1	SC Cable Holder	
49703-1	ST Cable Holder	
FOM-6000	Cleave Tool	
	LightCrimp Video	
		The second se

#### **ORDERING INFORMATION KITS & SUPPLIES**

1278118-4	ST, SC, MTRJ and LC LightCrimp Tool Kit	\$1,480.31
1754847-1	LC LightCrimp Plus Upgrade Kit	\$130.00

## **OPTIONAL ACCESSORIES** AND SUPPLIES

492703-1	Cable Holder/Template ST Style	\$7.85	492782-1	SC LightCrimp Plus Crimp Tool	\$396.00
1278023-1	Cable Holder/Template SC Style	\$8.85	49263-1	ST LightCrimp Plus Crimp Tool	\$305.00
FOM-6000	Fiber Optic Cleaver	\$139.00	1754137-1	LC LightCrimp Plus Crimp Tool	\$375.00

## **3M™** CrimpLok™

CrimpLok connectors combine the speed of non-adhesive connectors with the performance characteristics of epoxy and Hot Melt Connectors. CrimpLoks are the ideal solution when there is no power source or for working in tight workspaces

#### CrimpLok™ Tool Kit Includes

6955-C	Crimp Tool	355-A
6955-P	Polish Tool	6955-S
SP-00503	Lapping Film, One step, CrimpLok - 50	05-00002
80611013121	Lapping Film, Final SM, CrimpLok - 50	05-00001
8892	Universal Polishing Jig	6955-H

	View Scope, 100X
	Buffer Stripper
2	Cable Stripper
17	Link Free Cloths (4" x 4")
	CrimpLok Tool Pouch



## **ORDERING INFORMATION** CONNECTORS

PART NUMBER	STYLE	TYPE	FERRULE	TYPICAL LOSS	PRICE
6901	ST	MM	Zirconia	.2dB	\$6.75
6900	SC	MM	Zirconia	.2dB	\$7.00
8901	ST	SM	Zirconia	.1dB	\$9.50
8900	SC	SM	Zirconia	.1dB	\$9.50

## **ORDERING INFORMATION KIT & SUPPLIES**

6955	CrimpLok Tool Kit for ST, SC Connectors	\$859.78
6365CT	3M Universal Crimp Tool	\$150.00
6955T	3M CrimpLok Activation Tool	\$135.00
SP-00503	3M CrimpLok One-step Polish Film	\$58.00
80-6110-1312-1	3M CrimpLok SM Final Step Film (50 pk)	\$46.95

87

Fiber(•ptic.com

# **LEVITON** Thread-Lock Kit & Connectors

The Thread-Lock connector from Leviton is available in SC, FC and ST styles. These field-terminable, simple, craft-friendly connectors can be installed quickly with no heat, epoxy or proprietary tools. Features silicon snap-on build-up sleeves for easy installation. Available for 62.5µm, 50µm & singlemode fiber.

## **ORDERING INFORMATION** CONNECTORS & CLIP

SC Thread-Lock Connector MM (50µm or 62.5µm Fiber)	\$9.15
ST Thread-Lock Connector MM (50µm or 62.5µm Fiber)	\$6.75
FC Thread-Lock Connector MM (50µm or 62.5µm Fiber)	\$7.75
SC Thread-Lock Connector Singlemode	\$10.95
ST Thread-Lock Connector Singlemode	\$7.95
FC Thread-Lock Connector Singlemode	\$12.15
SC Duplex Clip for Thread-Lock Connectors, Black (25/bag)	\$9.45
	ST Thread-Lock Connector MM (50µm or 62.5µm Fiber) FC Thread-Lock Connector MM (50µm or 62.5µm Fiber) SC Thread-Lock Connector Singlemode ST Thread-Lock Connector Singlemode FC Thread-Lock Connector Singlemode



#### **ORDERING INFORMATION KIT & SUPPLIES**

49800-UTP	Leviton Opt-X Pro Tool Kit for Thread-Lock Connectors	\$640.00
49885-SBS	Silicon Build-Up Sleeve, w/ one of each BUS type (5/bag)	\$3.50
49886-CTT	Thread-Lock ST/SC Tightening Tool	\$4.35

# **3M™** Hot Melt Connectors

3M Hot Melt continues to be a popular choice among installers in the field. The Hot Melt connectors utilize an advanced adhesive technology eliminating the application of epoxy. The connectors provide quick termination in 2 minutes or less and reheatable to allow for the fiber repositioning. All 3M Hot Melt connectors have a typical loss of 0.2dB.

#### All Hot Melt Kits Include

120V Oven / 230V Oven	6365-ST	Stripping Tools 🛛 🗕
ST Connector Holders - 4	6365-CT	Crimp Tool
FC Connector Holders - 4	6365-FS	Fiber Scribe
FC Connector Holders - 4	6365-VS	View Scope (200x)
Round Polishing Pad	CA-8	Pronto Adhesive
2µm Lapping Film (pale green) - 200		Alcohol Bottle (empty)
0.5µm Diamond Lapping Film (pale	gray)	Water Bottle (empty)
0.5µm Final Lapping Film (frosted) - 5	50	Fiber Scrap Can
0.05µm Lapping Film (pale yellow) -	30	Roll-Up Pouch
Soft Polishing Pad - 2 🦯 🧧		Lint-Free Cloths
Polishing Jig - 3		Fiber Marking Pen
Jacket Stripper		Training CD
Kevlar Snips	- 1B-	Instructions (paper)
311		6850A
	ST Connector Holders - 4 FC Connector Holders - 4 FC Connector Holders - 4 FC Connector Holders - 4 Round Polishing Pad 2µm Lapping Film (pale green) - 200 0.5µm Diamond Lapping Film (pale green) - 200 0.5µm Final Lapping Film (frosted) - 5 0.05µm Lapping Film (pale yellow) - Soft Polishing Pad - 2 Polishing Jig - 3 Jacket Stripper	ST Connector Holders - 4 FC Connector Holders - 4 FC Connector Holders - 4 FC Connector Holders - 4 FC Connector Holders - 4 Round Polishing Pad 2µm Lapping Film (pale green) - 20 0.5µm Final Lapping Film (pale gray) 0.5µm Final Lapping Film (frosted) - 50 0.05µm Lapping Film (pale yellow) - 30 Soft Polishing Pad - 2 Polishing Jig - 3 Jacket Stripper



#### **ORDERING INFORMATION** CONNECTORS

PART #	STYLE	ТҮРЕ	FIBER SIZE	PRICE
6100	ST	Multimode	125µm	\$6.30
8100YS	ST	Singlemode	126µm	\$7.80
6200	FC	Multimode	125µm	\$8.76
8200W	FC	Singlemode	126µm	\$9.60
6300	SC	Multimode	125µm	\$6.44
8300	SC	Singlemode	126µm	\$8.45
6600-S	LC Simplex	MM/900µm Boot	125µm	\$8.75
6600-D	LC Duplex	MM/900µm Boot	125µm	\$14.61
6602-S	LC Simplex	MM/1.6-2mm Boot	125µm	\$8.87
6602-D	LC Duplex	MM/1.6-2mm Boot	125µm	\$17.53
6603-S	LC Simplex	MM/3.0mm Boot	125µm	\$8.87
6603-D	LC Duplex	MM/3.0mm Boot	125µm	\$17.73
8600-S	LC Simplex	SM/900µm Boot	126µm	\$11.87
8602-S	LC Simplex	SM/1.6-2mm Boot	126µm	\$11.33
8603-S	LC Simplex	SM/3.0mm Boot	126µm	\$11.73

## **ORDERING INFORMATION** CONNECTOR KITS

6361	3M Hot Melt Tool Kit for ST, FC, SC with Oven (230V)	\$1,300.00
6156	Conversion Kit (Oven, ST, SC, FC Holders, and Cooling Stand)	\$637.00

## **OPTIONAL ACCESSORIES** AND SUPPLIES

FOM-9110	6 Port Hot Melt Oven	\$333.00
FOM-9130	12 Port Hot Melt Oven	\$410.00
6850A	Auto Polisher for Hot Melts includes ST Holder)	\$1,733.35
6392	SC Holder for 6850A Polisher	\$115.00
6292	FC Holder for 6850A Polisher	\$182.00
661X-0.5S	0.5µm Diamond Lapping Film	\$5.85
6192A	2µm 5" Polish Film 50 Pack	\$20.59
6192B	2µm 4" Polish Film 1000 Pack for 6850A Polisher	\$198.00
6192-AA	Singlemode Final Polish Film for Hot Melts	\$0.40
6650-LC	LC Hot Melt Expansion Kit	\$893.75
6650-LH	LC Hot Melt Holders	\$225.00



# SPLICE-ON CONNECTORS

# FITEL Splice-On Connector System

FITEL's new connector termination system allows for unsurpassed performance and flexibility in the field.

This new "splice-on" connector eliminates the need for field polishing and significantly improves the quality of the termination and installation time required.

FITEL's factory polished ferrules with pre-cleaved fiber stubs are spliced onto the field fiber utilizing FITEL's proprietary ferrule holder and fusion splicer. Once spliced, the SC/APC or SC/UPC connector is easily assembled by using a process that requires minimal skill or training.



## ORDERING INFORMATION CONNECTOR KITS

SOC-KIT-A	S122 Connector Termination Add-on Kit	\$1,995.00
SOC-KIT-B	S177 Connector Termination Add-on Kit	\$1,995.00

## **SPECIFICATIONS**

	ТҮРЕ		
	SC/UPC; FC/UPC	SC/APC; FC/APC	
Insertion Loss	Typical	0.30dB	
Reflectance	< - 55dbB	< -65dB	
Fiber Type	SN	ИF	
Jacket Type	900µm, 2mm, 3mm		
Ferrule Type	Zirconia ceramic ferrule w/pre-polished fiber stub		

## **ORDERING INFORMATION** CONNECTORS

SSCS-PN1	SC/APC Splice-On-Connector, 900µm	\$17.05
SSCS-PN2	SC/APC Splice-On-Connector, 2mm	\$17.36
SSCS-PN3	SC/APC Splice-On-Connector, 3mm	\$17.36
SSCS-P1	SC/UPC Splice-On-Connector, 900µm	\$16.56
SSCS-P2	SC/UPC Splice-On-Connector, 2mm	\$16.94
SSCS-P3	SC/UPC Splice-On-Connector, 3mm	\$16.94
SAPS-387	FC/ APC Splice-On-Connector, 3mm	\$19.84
SAPS-356	FC/UPC Splice-On-Connector, 2mm	\$19.37
SAPS-357	FC/UPC Splice-On-Connector, 3mm	\$19.37

# **SUMITOMO** Lynx CustomFit<sup>™</sup> Splice-On-Connectors

The Lynx—CustomFit Splice-On Connector is compatible with a vast array of existing splicer brands in the market. Customization in the field, ease of use, elimination of hand polishing, reproducible results, reliability, and unprecedented accuracy in connectorization makes the Lynx—CustomFit Splice-On Connector the new choice in fiber termination.



## **ORDERING INFORMATION** CONNECTORS

LYNX-SCUPCSM-F1	SC/UPC Lynx Splice-On-Connector, Singlemode, 250µm & 900µm (pack)	\$11.94
LYNX-SCAPCSM-F1	SC/APC Lynx Splice-On-Connector, Singlemode, 250µm & 900µm (pack)	\$16.89
LYNX-SCUPCMM-F2	SC/UPC Lynx Splice-On-Connector, Multimode 50µm, 250µm & 900µm (pack)	\$16.31



LYNX-HOLDER-C

## **SPECIFICATIONS**

Fiber Type	SMF; MMF 50µm and 62.5µm		
Coating Diameter	250µm, 900µm, 2mm, and 3mm		
Connector Type	SC		
Polishing	UPC APC		
Insertion Loss	Typical 0.20dB	Typical 0.20dB	
Return Loss	< -55dB	< -65dB	
Color	Blue	Green	

## **ORDERING INFORMATION** SUPPLIES

LYNX-HOLDER-C Connector Holder for Lynx Connectors \$278.00

- Permanent Termination
- Easy Installation and High Performance
- Compatible with Conventional SC Connector
- Requires Neither Adhesives, Hand Polishing, nor Matching Gel
- Customized Connectorization in the OSP, CO, and Premise Environments

# 0µт & 900µт (pack) **\$16.31**

Costly Purchases

• Meets Telcordia GR-326 Standard

• Complete Connectorization in Less than 3 Minutes

• Instant Splice Loss Feedback, Re-

• Eliminates the Need to Inventory

ing Fusion Splicers, Eliminating

89

**Preterminated Jumpers** 

• Compatible with Many Exist-

quiring No Additional Equipment

# QUICK TERMINATION & SPLICE-ON CONNECTORS

# **FUSECONNECT™** Connectors

AFL's FuseConnect fusion spliced, field installable connectors are uniquely designed and feature only four to five components. The factory pre-polished ferrule eliminates the need for polishing, adhesives, and crimping in the field, which minimizes the potential for operator error and expensive connector scrap.

FuseConnect utilizes a fusion splicer to terminate the connector in the field, addressing return loss concerns present in analog optical networks. This advanced process yields true APC performance for SC/APC and LC/ APC configurations, and is compliant to GR-326-CORE. FuseConnect is compatible with Fujikura fusion splicers and most other fiber holder-based fusion splicing platforms



FuseConnect in Fusion Splicer

#### Features

- Field installable
- No adhesives, crimping or polishing
- True APC performance
- Compatible with most fusion splicers
- SM compliance to GR-326-CORE
- MM compliance to TIA/EIA568C.3
- Central office connector replacement

Connectorization in MDU FTTP cabling

• Connectorization in outside plant

• Connectorization in FTTDesk

• Data center installation

• Connectorization in RF-overlay TTTP networks

• Connectorization in cable TV backbone networks

**Applications** 

#### LC CONNECTORS

SC CONNECTOR	RS	
FUSESC2/3MSMA-6	FUSECONNECT,SC,APC,SM, 2.0 & 3.0MM, PACK OF 6,GREEN	\$113.13
FUSESC-9U-SMA-6	FUSECONNECT, SC, APC, SM, 900UM, PACK OF 6, GREEN	\$101.67
FUSESC2/3MSMU-6	FUSECONNECT, SC, UPC, SM, 2.0 & 3.0MM, PACK OF 6, BLUE	\$111.38
FUSESC-9U-SMU-6	FUSECONNECT, SC, UPC, SM, 900UM, PACK OF 6, BLUE	\$99.93
FUSESC2/3MM62-6	FUSECONNECT, SC, PC, MM, 62.5UM, 2.0 & 3.0MM, PACK OF 6, BEIGE	\$110.18
FUSESC9U-MM62-6	FUSECONNECT, SC, PC, MM, 62.5UM, 900UM, PACK OF 6, BEIGE	\$98.73
FUSESC2/3MM50-6	FUSECONNECT, SC, PC, MM, 50UM, 2.0 & 3.0MM, PACK OF 6, BLACK	\$110.18
FUSESC9U-MM50-6	FUSECONNECT, SC, PC, MM, 50UM, 900UM, PACK OF 6, BLACK	\$98.73
FUSESC2/3MM50L-6	FUSECONNECT,SC,PC,MM,50UM 10GIG, 2.0 & 3.0MM,PACK OF 6,AQUA	\$110.18
FUSESC9UMM50L-6	FUSECONNECT,SC,PC,MM,50UM 10GIG, 900UM,PACK OF 6,AQUA	\$98.73

LC CONNECTORS	)	
FUSELC-2M-SMU-6	FUSECONNECT,LC,UPC,SM,2.0MM, PACK OF 6,BLUE	\$117.71
FUSELC-9U-SMU-6	FUSECONNECT,LC,UPC,SM,900UM, PACK OF 6,BLUE	\$106.25
FUSELC2M-MM62-6	FUSECONNECT,LC,PC,MM,62.5UM, 2.0MM,PACK OF 6,BEIGE	\$116.62
FUSELC9U-MM62-6	FUSECONNECT,LC,PC,MM,62.5UM, 900UM,PACK OF 6,BEIGE	\$105.05
FUSELC2M-MM50-6	FUSECONNECT,LC,PC,MM,50UM, 2.0MM,PACK OF 6,BLACK	\$116.62
FUSELC9U-MM50-6	FUSECONNECT,LC,PC,MM,50UM, 900UM,PACK OF 6,BLACK	\$105.05
FUSELC2MMM50L-6	FUSECONNECT,LC,PC,MM,50UM 10GIG, 2.0MM,PACK OF 6,AQUA	\$116.62
FUSE-LC-9U-MM50L-6	FUSECONNECT,LC,PC,MM,50UM 10GIG, 900UM,PACK OF 6,AQUA	\$105.05
FUSELC-9U-SMA-6	FUSECONNECT,LC,APC,SM,900UM, PACK OF 6,GREEN	\$112.91
FUSE-LC-2M-SMA-6	FUSECONNECT,LC,APC,SM,2.0MM, PACK OF 6,GREEN	\$112.91

#### **ST** CONNECTORS

FUSEST-9U-SMU-6	FUSECONNECT, ST, UPC, SM, 900UM, PACK OF 6, BLUE	\$102.76
FUSEST9U-MM62-6	FUSECONNECT,ST,PC,MM,62.5UM, 900UM,PACK OF 6,BEIGE	\$101.02
FUSEST9U-MM50-6	FUSECONNECT, ST, PC, MM, 50UM, 900UM, PACK OF 6, BLACK	\$101.02
FUSEST9UMM50L-6	FUSECONNECT,ST,PC,MM,50UM 10GIG, 900UM,PACK OF 6,AQUA	\$101.02

FUSEFC-9U-SMU-6	FUSECONNECT,FC, UPC,SM,900UM, PACK OF 6,BLUE	\$128.40
FUSEFC9U-MM62-6	FUSECONNECT,FC,PC,MM,62.5UM,900UM, PACK OF 6,BEIGE	\$78.80
FUSEFC9U-MM50-6	FUSECONNECT,FC,PC,MM,50UM,900UM, PACK OF 6,BLACK	\$78.80
FUSEFC9UMM50L-6	FUSECONNECT,FC,PC,MM,50UM 10GIG, 900UM,PACK OF 6,AQUA	\$78.80

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# SINGLEMODE & MULTIMODE PATCHCORDS

# PR<sup>®</sup> Singlemode 9/125 µm UPC Patchcords 3mm

PC-S-ALULU01F	1 M	\$9.89	PC-S-ACUCU01F	1 M	\$7.09	PC-S-ATUTU01F	1 M	\$7.09
PC-S-ALULU02F	2 M	\$10.18	PC-S-ACUCU02F	2 M	\$7.38	PC-S-ATUTU02F	2 M	\$7.38
PC-S-ALULU03F	3 M	\$10.48	PC-S-ACUCU03F	3 M	\$7.68	PC-S-ATUTU03F	3 M	\$7.68
PC-S-ALULU05F	5 M	\$11.06	PC-S-ACUCU05F	5 M	\$8.26	PC-S-ATUTU05F	5 M	\$8.26
PC-S-ALULU10F	10 M	\$12.52	PC-S-ACUCU10F	10 M	\$9.72	PC-S-ATUTU10F	10 M	\$9.72
       	PC-S-ALULU02F PC-S-ALULU03F PC-S-ALULU05F	PC-S-ALULU02F         2 M           PC-S-ALULU03F         3 M           PC-S-ALULU03F         5 M	PC-S-ALULU02F         2 M         \$10.18           PC-S-ALULU03F         3 M         \$10.48           PC-S-ALULU03F         5 M         \$11.06	PC-S-ALULU02F         2 M         \$10.18         PC-S-ACUCU02F           PC-S-ALULU03F         3 M         \$10.48         PC-S-ACUCU03F           PC-S-ALULU03F         5 M         \$11.06         PC-S-ACUCU05F	PC-S-ALULU02F         2 M         \$10.18         PC-S-ACUCU02F         2 M           PC-S-ALULU03F         3 M         \$10.48         PC-S-ACUCU03F         3 M           PC-S-ALULU03F         5 M         \$11.06         PC-S-ACUCU05F         5 M	PC-S-ALULU02F         2 M         \$10.18         PC-S-ACUCU02F         2 M         \$7.38           PC-S-ALULU03F         3 M         \$10.48         PC-S-ACUCU03F         3 M         \$7.68           PC-S-ALULU05F         5 M         \$11.06         PC-S-ACUCU05F         5 M         \$8.26	PC-S-ALULU02F         2 M         \$10.18         PC-S-ACUCU02F         2 M         \$7.38         PC-S-ATUTU02F           PC-S-ALULU03F         3 M         \$10.48         PC-S-ACUCU03F         3 M         \$7.68         PC-S-ATUTU03F           PC-S-ALULU05F         5 M         \$11.06         PC-S-ACUCU05F         5 M         \$8.26         PC-S-ATUTU05F	PC-S-ALULU02F         2 M         \$10.18         PC-S-ACUCU02F         2 M         \$7.38         PC-S-ATUTU02F         2 M           PC-S-ALULU03F         3 M         \$10.48         PC-S-ACUCU03F         3 M         \$7.68         PC-S-ATUTU03F         3 M           PC-S-ALULU05F         5 M         \$11.06         PC-S-ACUCU05F         5 M         \$8.26         PC-S-ATUTU05F         5 M

#### FC-FC DUPLEX

PC-S-DFUFU01F	1 M	\$15.78
PC-S-DFUFU02F	2 M	\$16.38
PC-S-DFUFU03F	3 M	\$16.95
PC-S-DFUFU05F	5 M	\$18.12
PC-S-DFUFU10F	10 M	\$21.04

## **LC-LC** DUPLEX

PC-S-DLULU01F	1 M	\$16.49
PC-S-DLULU02F	2 M	\$16.99
PC-S-DLULU03F	3 M	\$17.46
PC-S-DLULU05F	5 M	\$18.43
PC-S-DLULU10F	10 M	\$20.87

SC-SC DU	PLEX	
PC-S-DCUCU01F	1 M	\$14.18
PC-S-DCUCU02F	2 M	\$14.78
PC-S-DCUCU03F	3 M	\$15.35
PC-S-DCUCU05F	5 M	\$16.52

10 M

\$19.44

PC-S-DCUCU10F

PC-S-ATUTU01F	1 M	\$7.09
PC-S-ATUTU02F	2 M	\$7.38
PC-S-ATUTU03F	3 M	\$7.68
PC-S-ATUTU05F	5 M	\$8.26
PC-S-ATUTU10F	10 M	\$9.72

# **ST-ST** DUPLEX

PC-S-DTUTU01F	1 M	\$14.18
PC-S-DTUTU02F	2 M	\$14.78
PC-S-DTUTU03F	3 M	\$15.35
PC-S-DTUTU05F	5 M	\$16.52
PC-S-DTUTU10F	10 M	\$19.44

# **PR** Singlemode 9/125 µm HYBRID UPC Patchcords 3mm

#### **LC-SC** SIMPLEX

PC-S-ALUCU01F	1 M	\$10.11
PC-S-ALUCU02F	2 M	\$10.46
PC-S-ALUCU03F	3 M	\$10.80
PC-S-ALUCU05F	5 M	\$11.50
PC-S-ALUCU10F	10 M	\$13.24

## **LC-SC** DUPLEX

PC-S-DLUCU01F	1 M	\$15.16
PC-S-DLUCU02F	2 M	\$15.70
PC-S-DLUCU03F	3 M	\$16.21
PC-S-DLUCU05F	5 M	\$17.25
PC-S-DLUCU10F	10 M	\$19.86

## **LC-ST** SIMPLEX

PC-S-ALUTU01F	1 M	\$8.49
PC-S-ALUTU02F	2 M	\$8.78
PC-S-ALUTU03F	3 M	\$9.08
PC-S-ALUTU05F	5 M	\$9.66
PC-S-ALUTU10F	10 M	\$11.12

## **LC-ST** DUPLEX

PC-S-DLUTU01F	1 M	\$16.98
PC-S-DLUTU02F	2 M	\$17.58
PC-S-DLUTU03F	3 M	\$18.15
PC-S-DLUTU05F	5 M	\$19.32
PC-S-DLUTU10F	10 M	\$22.24

## **SC-ST** SIMPLEX

PC-S-ACUTU01F	1 M	\$7.09
PC-S-ACUTU02F	2 M	\$7.38
PC-S-ACUTU03F	3 M	\$7.68
PC-S-ACUTU05F	5 M	\$8.26
PC-S-ACUTU10F	10 M	\$9.72

## SC-ST DUPLEX

1 M	\$14.18
2 M	\$14.78
3 M	\$15.35
5 M	\$16.52
10 M	\$19.44
	2 M 3 M 5 M

# PR<sup>®</sup> Singlemode 9/125 µm APC Patchcords 3mm

#### FC-FC SIMPLEX

PC-S-AFAFA01F	1 M	\$15.14
PC-S-AFAFA02F	2 M	\$15.56
PC-S-AFAFA03F	3 M	\$15.99
PC-S-AFAFA05F	5 M	\$16.85
PC-S-AFAFA10F	10 M	\$19.00

#### FC-FC DUPLEX

PC-S-DFAFA01F	1 M	\$20.58
PC-S-DFAFA02F	2 M	\$21.18
PC-S-DFAFA03F	3 M	\$21.75
PC-S-DFAFA05F	5 M	\$22.92
PC-S-DFAFA10F	10 M	\$25.84

PC-S-ALALA01F	1 M	\$11.89
PC-S-ALALA02F	2 M	\$12.18
PC-S-ALALA03F	3 M	\$12.48
PC-S-ALALA05F	5 M	\$13.06
PC-S-ALALA10F	10 M	\$14.52

## **LC-LC** DUPLEX

PC-S-DLALA01F	1 M	\$23.78
PC-S-DLALA02F	2 M	\$24.38
PC-S-DLALA03F	3 M	\$24.95
PC-S-DLALA05F	5 M	\$26.12
PC-S-DLALA10F	10 M	\$29.04

## SC-SC SIMPLEX

PC-S-ACACA01F	1 M	\$9.49
PC-S-ACACA02F	2 M	\$9.78
PC-S-ACACA03F	3 M	\$10.08
PC-S-ACACA05F	5 M	\$10.66
PC-S-ACACA10F	10 M	\$12.12

SC-SC DUPLEX		
PC-S-DCACA01F	1 M	\$16.76
PC-S-DCACA02F	2 M	\$17.17
PC-S-DCACA03F	3 M	\$18.16
PC-S-DCACA05F	5 M	\$18.43
PC-S-DCACA10F	10 M	\$20.13

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# MULTIMODE PATCHCORDS

# PRO Multimode 50/125 µm UPC Patchcords 3mm

## FC-FC SIMPLEX

PC-N-AFUFU01	<b>F</b> 1 M	\$6.93
PC-N-AFUFU02	<b>F</b> 2 M	\$7.38
PC-N-AFUFU03	F 3 M	\$7.82
PC-N-AFUFU05	<b>F</b> 5 M	\$8.72
PC-N-AFUFU10	F 10 M	\$10.96

#### **LC-LC** SIMPLEX

PC-N-ALULU01F	1 M	\$8.93
PC-N-ALULU02F	2 M	\$9.38
PC-N-ALULU03F	3 M	\$9.82
PC-N-ALULU05F	5 M	\$10.72
PC-N-ALULU10F	10 M	\$12.96

SC-SC SIMPLEX		
PC-N-ACUCU01F	1 M	\$6.05
PC-N-ACUCU02F	2 M	\$6.50
PC-N-ACUCU03F	3 M	\$6.94
PC-N-ACUCU05F	5 M	\$7.84

10 M

#### **ST-ST** SIMPLEX

**ST-ST** DUPLEX

PC-N-ATUTU01F	1 M	\$6.05
PC-N-ATUTU02F	2 M	\$6.50
PC-N-ATUTU03F	3 M	\$6.94
PC-N-ATUTU05F	5 M	\$7.84
PC-N-ATUTU10F	10 M	\$10.08

## FC-FC DUPLEX

PC-N-DFUFU01F	1 M	\$13.86
PC-N-DFUFU02F	2 M	\$14.75
PC-N-DFUFU03F	3 M	\$15.65
PC-N-DFUFU05F	5 M	\$17.44
PC-N-DFUFU10F	10 M	\$21.92

## LC-LC DUPLEX

PC-N-DLULU01F	1 M	\$17.86
PC-N-DLULU02F	2 M	\$18.75
PC-N-DLULU03F	3 M	\$19.65
PC-N-DLULU05F	5 M	\$21.44
PC-N-DLULU10F	10 M	\$25.92

## SC-SC DUPLEX

PC-N-ACUCU10F

PC-N-DCUCU01F	1 M	\$12.10	PC-N-DTUTU01F	1 M	\$12.10
PC-N-DCUCU02F	2 M	\$12.99	PC-N-DTUTU02F	2 M	\$12.99
PC-N-DCUCU03F	3 M	\$13.89	PC-N-DTUTU03F	3 M	\$13.89
PC-N-DCUCU05F	5 M	\$15.68	PC-N-DTUTU05F	5 M	\$15.68
PC-N-DCUCU10F	10 M	\$20.16	PC-N-DTUTU10F	10 M	\$20.16

\$10.08

# PRO Multimode HYBRID 50/125 µm UPC Patchcords 3mm

## **LC-SC** SIMPLEX

PC-N-ALUCU01F	1 M	\$7.49
PC-N-ALUCU02F	2 M	\$7.94
PC-N-ALUCU03F	3 M	\$8.38
PC-N-ALUCU05F	5 M	\$9.28
PC-N -ALUCU10F	10 M	\$11.52

#### **LC-SC** DUPLEX

PC-N-DLUCU01F	1 M	\$14.98
PC-N-DLUCU02F	2 M	\$15.87
PC-N-DLUCU03F	3 M	\$16.77
PC-N-DLUCU05F	5 M	\$18.56
PC-N-DLUCU10F	10 M	\$23.04

## LC-ST SIMPLEX

PC-N-ALUTU01F	1 M	\$7.49
PC-N-ALUTU02F	2 M	\$7.94
PC-N-ALUTU03F	3 M	\$8.38
PC-N-ALUTU05F	5 M	\$9.28
PC-N-ALUTU10F	10 M	\$11.52

#### **LC-ST** DUPLEX

PC-N-DLUTU01F	1 M	\$14.98
PC-N-DLUTU02F	2 M	\$15.87
PC-N-DLUTU03F	3 M	\$16.77
PC-N-DLUTU05F	5 M	\$18.56
PC-N-DLUTU10F	10 M	\$23.04

#### SC-ST SIMPLEX

PC-N-ACUTU01F	1 M	\$6.05
PC-N-ACUTU02F	2 M	\$6.50
PC-N-ACUTU03F	3 M	\$6.94
PC-N-ACUTU05F	5 M	\$7.84
PC-N-ACUTU10F	10 M	\$10.08

#### SC-ST DUPLEX

PC-N-DCUTU01F	1 M	\$12.10
PC-N-DCUTU02F	2 M	\$12.99
PC-N-DCUTU03F	3 M	\$13.89
PC-N-DCUTU05F	5 M	\$15.68
PC-N-DCUTU10F	10 M	\$20.16

# PR Multimode 50/125 µm 10 Gig UPC Patchcords 3mm

PRO offers 10 Gigabit duplex 1.6mm multimode 50µm Patchcords perfect for upgrading your network. Operating distance of 300 meters using laser optimized InfiniCor SX + multimode fiber. PRO 10 Gigabit assemblies are designed to run advanced applications, meet IEEE 802.3 specifications and offer superior connector polish. Other configurations available upon request.

#### SC-ST DUPLEX

PC-L-DCUTU01F	1 M	\$13.95
PC-L-DCUTU02F	2 M	\$14.95
PC-L-DCUTU03F	3 M	\$15.95
PC-L-DCUTU05F	5 M	\$17.95
PC-L-DCUTU10F	10 M	\$22.95

## **LC-LC** DUPLEX

PC-L-DLULU01F	1 M	\$18.31
PC-L-DLULU02F	2 M	\$19.66
PC-L-DLULU03F	3 M	\$21.04
PC-L-DLULU05F	5 M	\$23.72
PC-L-DLULU10F	10 M	\$30.48

#### SC-SC DUPLEX

PC-L-DCUCU01F	1 M	\$12.55
PC-L-DCUCU02F	2 M	\$13.90
PC-L-DCUCU03F	3 M	\$15.28
PC-L-DCUCU05F	5 M	\$17.96
PC-L-DCUCU10F	10 M	\$24.72

#### **LC-SC** DUPLEX

PC-L-DLUCU01F	1 M	\$15.43
PC-L-DLUCU02F	2 M	\$16.78
PC-L-DLUCU03F	3 M	\$18.16
PC-L-DLUCU05F	5 M	\$20.84
PC-L-DLUCU10F	10 M	\$27.60

#### **ST-ST** DUPLEX

PC-L-DTUTU01F	1 M	\$12.55
PC-L-DTUTU02F	2 M	\$13.90
PC-L-DTUTU03F	3 M	\$15.28
PC-L-DTUTU05F	5 M	\$17.96
PC-L-DTUTU10F	10 M	\$24.72

# SPECIALTY & CUSTOM CABLE ASSEMBLIES

# PRO Multimode 62.5/125 µm UPC Patchcords 3mm

FC-FC SIMI	PLEX		LC-LC SIM	PLEX		SC-SC SIM	<b>1PLEX</b>		ST-ST SIMP	LEX	
PC-M-AFUFU01F	1 M	\$6.93	PC-M-ALULU01F	1 M	\$8.93	PC-M-ACUCU01F	1 M	\$6.05	PC-M-ATUTU01F	1 M	\$6.05
PC-M-AFUFU02F	2 M	\$7.38	PC-M-ALULU02F	2 M	\$9.38	PC-M-ACUCU02F	2 M	\$6.50	PC-M-ATUTU02F	2 M	\$6.50
PC-M-AFUFU03F	3 M	\$7.82	PC-M-ALULU03F	3 M	\$9.82	PC-M-ACUCU03F	3 M	\$6.94	PC-M-ATUTU03F	3 M	\$6.94
PC-M-AFUFU05F	5 M	\$8.72	PC-M-ALULU05F	5 M	\$10.72	PC-M-ACUCU05F	5 M	\$7.84	PC-M-ATUTU05F	5 M	\$7.84
PC-M-AFUFU10F	10 M	\$10.96	PC-M-ALULU10F	10 M	\$12.96	PC-M-ACUCU10F	10 M	\$10.08	PC-M-ATUTU10F	10 M	\$10.08

#### FC-FC DUPLEX

PC-M-DFUFU01F	1 M	\$13.86
PC-M-DFUFU02F	2 M	\$14.75
PC-M-DFUFU03F	3 M	\$15.65
PC-M-DFUFU05F	5 M	\$17.44
PC-M-DFUFU10F	10 M	\$21.92

PC-IVI-ALULU10F	10 M	\$12.96
LC-LC DUP	LEX	
PC-M-DLULU01F	1 M	\$17.86
		• • •
PC-M-DLULU02F	2 M	\$18.75
PC-M-DLULU03F	3 M	\$19.65
		+
PC-M-DITITIOSE	5 M	\$21 //

10 M

PC-M-DLULU10F

## SC-SC DUPLEX

PC-M-DCUCU01F	1 M	\$12.10	PC-M-DTUTU01F	1 M	\$12.10
PC-M-DCUCU02F	2 M	\$12.99	PC-M-DTUTU02F	2 M	\$12.99
PC-M-DCUCU03F	3 M	\$13.89	PC-M-DTUTU03F	3 M	\$13.89
PC-M-DCUCU05F	5 M	\$15.68	PC-M-DTUTU05F	5 M	\$15.68
PC-M-DCUCU10F	10 M	\$20.16	PC-M-DTUTU10F	10 M	\$20.16

# PRO Multimode HYBRID 62.5/125 µm UPC Patchcords 3mm

## **LC-SC** SIMPLEX

PC-M-ALUCU01F	1 M	\$7.49
PC-M-ALUCU02F	2 M	\$7.94
PC-M-ALUCU03F	3 M	\$8.38
PC-M-ALUCU05F	5 M	\$9.28
PC-M-ALUCU10F	10 M	\$11.52

## **LC-SC** DUPLEX

PC-M-DLUCU01F	1 M	\$15.42
PC-M-DLUCU02F	2 M	\$15.87
PC-M-DLUCU03F	3 M	\$16.77
PC-M-DLUCU05F	5 M	\$18.56
PC-M-DLUCU10F	10 M	\$23.04

## **LC-ST** SIMPLEX

\$25.92

PC-M-ALUTU01F	1 M	\$7.49
PC-M-ALUTU02F	2 M	\$7.94
PC-M-ALUTU03F	3 M	\$8.38
PC-M-ALUTU05F	5 M	\$9.28
PC-M-ALUTU10F	10 M	\$11.52

## LC-ST DUPLEX

PC-M-DLUTU01F	1 M	\$15.42
PC-M-DLUTU02F	2 M	\$15.87
PC-M-DLUTU03F	3 M	\$16.77
PC-M-DLUTU05F	5 M	\$18.56
PC-M-DLUTU10F	10 M	\$23.04

## SC-ST SIMPLEX

ST-ST DUPLEX

PC-M-ACUTU01F	1 M	\$6.05
PC-M-ACUTU02F	2 M	\$6.50
PC-M-ACUTU03F	3 M	\$6.94
PC-M-ACUTU05F	5 M	\$7.84
PC-M-ACUTU10F	10 M	\$10.08

## SC-ST DUPLEX

PC-M-DCUTU01F	1 M	\$12.10
PC-M-DCUTU02F	2 M	\$12.99
PC-M-DCUTU03F	3 M	\$13.89
PC-M-DCUTU05F	5 M	\$15.68
PC-M-DCUTU10F	10 M	\$20.16

## **SPECIFICATIONS** Singlemode UPC

Insertion Loss	≤0.5 dB
Back Reflection	-50 dB

## SPECIFICATIONS Multimode UPC

Insertion Loss	≤0.5 dB
Back Reflection	-25 dB

## SPECIFICATIONS Singlemode APC

Insertion Loss	≤0.5 dB
Back Reflection	-60 dB

# \*Different cable diameters available upon request!



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# **PRO** RACK MOUNT ENCLOSURES

# **PR** Swing-Out Style

# Rack Mount Fiber Distribution Enclosures

Precision Rated Optics swing-out rack mounted enclosures are designed to provide connectivity and distribution solutions. Enclosures are supplied with universal mounting hardware for 19" or 23" mounting. Swing out style enclosures are designed to support the storage of splice trays.





# **PR** Slide-Out Removable Top Style

# Rack Mount Fiber Distribution Enclosures

Precision Rated Optics slide-out removable top rack mounted enclosures are designed to provide connectivity and distribution solutions. Enclosures are supplied with universal mounting hardware for 19" or 23" mounting. Slide-out removable top style enclosures are designed to support the storage of splice trays.

	A REAL PROPERTY OF		
Part #	RM-ADM103-BS	RM-ADM206-BS	RM-ADM309-BS
Splice Tray Capacity	(2)	(3)	(5)
Rack Unit	1	2	3
Adapter Capacity	(3) Panels	(6) Panels	(9) Panels
Style	Slide-out Removable Top	Slide-out Removable Top	Slide-out Removable Top
Available Colors	Black	Black	Black
Size (H" x W" x D") in	1.75" x 17" x 14.0"	3.50" x 17" x 14.0"	5.25" x 17" x 14.0"
Weight	15 lbs.	19 lbs.	20.5 lbs.
Material	.060" Powder Coated Steel	.060" Powder Coated Steel	.060" Powder Coated Steel
Price	\$138.82	\$170.71	\$209.13

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.

# **PR** Slide-Out Style

# Rack Mount Fiber Distribution Enclosures

Precision Rated Optics slide-out rack mounted enclosures are designed to provide connectivity and distribution solutions. Enclosures are supplied with universal mounting hardware for 19" or 23" mounting. Slide-out style enclosures are designed to support the storage of splice trays.

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Part #	RM-ADL204-BS/BA	RM-ADL306-BS/BA	RM-ADL412-BS/BA	RM-ADL8524-BS/BA
Splice Tray Capacity	(2)	(3)	(8)	(16)
Rack Unit	2	3	4	8
Adapter Capacity	(4) Panels	(6) Panels	(12) Panels	(24) Panels
Style	Slide-out	Slide-out	Slide-out	Slide-out
Available Colors	Black	Black	Black	Black
Size (H" x W" x D") in	3.5″ x 17″ x 14.0″	5.25" x 17" x 14.0"	7.0" x 17" x 14.0"	14.88" x 17" x 14.0"
Weight	(Steel 22 lbs.) (Alum 12 lbs.)	(Steel 24 lbs.) (Alum 13 lbs.)	(Steel 26 lbs.) (Alum 14 lbs.)	19 lbs.
Material	.060" Powder Coated Steel (or) .060" Powder Coated Aluminum	.060" Powder Coated Steel (or) .060" Powder Coated Aluminum	14 GA Powder Coated Steel (or) .060" Powder Coated Aluminum	.060" Powder Coated Aluminum (Black or White)
Price	BS: \$145.13 / BA: \$160.16	BS: \$165.95 / BA: \$170.80	BS: \$221.63 / BA: \$215.18	BA: \$359.13 / WA: \$348.67

# **PR** Slide-Out Style Combination Patch & Splice Distribution Units

# Rack Mount Fiber Distribution Enclosures

Precision Rated Optics slide-out combination patch & splice rack mounted termination enclosures are designed to provide connectivity and distribution solutions. Enclosures are supplied with universal mounting hardware for 19" or 23" mounting. Slide-out style combination patch and splice enclosures are designed to support the storage of splice trays.

	000000 LP	
Part #	RM-ADE404-BA	RM-ADE8512-BA
Splice Tray Capacity	(4)	(8)
Rack Unit	4	8
Adapter Capacity	(4) Panels	(12) Panels
Style	Slide-out Combination	Slide-out Combination
Available Colors	Black	Black
Size (H" x W" x D") in	7.0" x 17" x 14.0"	14.88" x 17" x 14.0"
Weight	16 lbs.	20 lbs.
Material	.060" Powder Coated Aluminum	.060" Powder Coated Aluminum
Price	\$226.33	\$284.35
*All anclosures ordered d	o not include adapter papels, splice travs or pigtails	

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.

# **PR** Slide-Out Style Splice Distribution Units

# Rack Mount Fiber Distribution Enclosures

Precision Rated Optics slide-out splice rack mounted termination enclosures are designed to provide connectivity and distribution solutions. Enclosures are supplied with universal mounting hardware for 19" or 23" mounting. Slide-out style splice enclosures are designed to support the storage of splice trays.



# **PR** Patch Panels and Rack/Wall Mount

Rack Mount Patch Panel Fiber Distribution

			NINE SHARE SALAS
Part #	RM-ABN103-BS	RM-ABS103-BS	RM-ADC103-BS
Splice Tray Capacity	N/A	N/A	(1)
Rack Unit	1	1	1
Adapter Capacity	(3) Panels	(3) Panels	(3) Panels
Style	Stationary	Stationary	Stationary
Available Colors	Black	Black	Black
Size (H" x W" x D") in	1.75″ x 19″ x 1″	1.75″ x 19″ x 8″	1.75" x 17" x 13.8"
Weight	1 lbs.	2 lbs.	16 lbs.
Material	.060" Powder Coated Steel	.060" Powder Coated Steel	.060" Powder Coated Steel
Price	\$12.45	\$21.45	\$109.45

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.

# **PR** Accessories

# Rack Mount Fiber Distribution Accessories





# **PR** Standard Single Outer Door

# Wall Mount Fiber Distribution Enclosures

Precision Rated Optics wall mount enclosures are designed to provide connectivity and distribution solutions. Enclosures are divided into several groups to meet application specific requirements such as Construction Grade, Single Door, Dual Door, Added Security, NEMA 4 and NEMA 12. Units are available in standard Black or Off White unless specified

Part #	WM-AAA-0001-BS	WM-AAB-0001-BS
Adapter Capacity	(1) Panel	(1) Panel
Capacity	(1) Fiber spool	(12) Single splice holder
Color	Black	Black
Size (H x W x D) in	6.3" x 5.5" x 1.57"	6.3″ x 5.5″ x 1.57″
Material	18 GA steel	18 GA steel
Price	\$40.88	\$ 37.54

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.

# **PR** Standard Single Outer Door Construction Grade

# Wall Mount Fiber Distribution Enclosures

Precision Rated Optics wall mount enclosures are designed to provide connectivity and distribution solutions. Enclosures are divided into several groups to meet application specific requirements such as Construction Grade, Single Door, Dual Door, Added Security, NEMA 4 and NEMA 12. Units are available in standard Black or Off White unless specified

Part #	WM-ABA-0002-BS	WM-ABB-0004-BS	WM-ABC-0008-BS
Splice Tray Capacity	(2)	(4)	(8)
Adapter Capacity	(2) Panels	(4) Panels	(8) Panels
Style	Dual Door	Dual Door	Dual Door
Color	Black	Black	Black
Size (H x W x D) in	9.25" x 13" x 3.5"	11.5" x 13 x 3.5"	12" x 17" x 6"
Weight	7 lbs	8 lbs	15 lbs
Material	18 GA powder coated steel	18 GA powder coated steel	18 GA powder coated steel
Price	\$48.67	\$61.05	\$84.08

# **PR** Standard Dual Door

## Wall Mount Fiber Distribution Enclosures

Precision Rated Optics wall mount enclosures are designed to provide connectivity and distribution solutions. Enclosures are divided into several groups to meet application specific requirements such as Construction Grade, Single Door, Dual Door, Added Security and NEMA ratings. Units are available in standard black unless specified.

	FRE	ERIC	
Part #	WM-ADA-0002-BS	WM-ADB-0004-BS	WM-ADC-0009-BS
Splice Tray Capacity	(2)	(4)	(3)
Adapter Capacity	(2) Panels	(4) Panels	(9) Panels
Style	Dual Door	Dual Door	Dual Door
Color	Black	Black	Black
Size (H x W x D) in	10.2" x 12.5" x 3.5"	10.8" x 12" x 4"	17" x 21.2" x 5"
Weight	8 lbs	10 lbs	23 lbs
Material	16 GA powder coated steel	16 GA powder coated steel	16 GA powder coated steel
Price	\$92.46	\$106.64	\$175.33

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.

# **PR** Standard Lockable Dual Door

# Wall Mount Fiber Distribution Enclosures

Precision Rated Optics wall mount enclosures are designed to provide connectivity and distribution solutions. Enclosures are divided into several groups to meet application specific requirements such as Construction Grade, Single Door, Dual Door, Added Security and NEMA ratings. Units are available in standard black unless specified.

Part #	WM-ACA-0002-BS	WM-ACB-0004-BS
Splice Tray Capacity	(2)	(4)
Adapter Capacity	(2) Panels	(4) Panels
Style	Dual Door	Dual Door
Color	Black	Black
Size (H x W x D) in	10.2" x 12" x 3.5"	12" x 12" x 3.5"
Weight	8 lbs	9 lbs
Material	18 GA powder coated steel	18 GA powder coated steel
Price	\$ 69.31	\$76.31

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.

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# **PRO** WALL MOUNT ENCLOSURES

# **PR** Added Security Dual Door

# Wall Mount Fiber Distribution Enclosures

Precision Rated Optics wall mount enclosures are designed to provide connectivity and distribution solutions. Enclosures are divided into several groups to meet application specific requirements such as Construction Grade, Single Door, Dual Door and Added Security. Units are available in standard black unless specified.



Price	\$144.29	\$161.06	\$189.37
Material	16 GA powder coated steel	16 GA powder coated steel	16 GA powder coated steel
Weight	8 lbs	12 lbs	24 lbs
Size (H x W x D) in	6" x 12" x 5.5"	11" x 14" x 4.5"	16" x 20" x 6.5"
Color	Black	Black	Black
Style	Added security dual door	Added security dual door	Added security dual door
Adapter Capacity	(2) Panels	(4) Panels	(8) Panels
Splice Tray Capacity	(2)	(2)	(4)
Part #	WM-AEA-0002-BS	WM-AEB-0004-BS	WM-AEC-0008-BS
Part #	WM-AEA-0002-BS	WM-AEB-0004-BS	WM-AEC-0

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.

# Loaded Enclosures



Save valuable time in the field by ordering your enclosures pre loaded with adapter panels and pigtails based on your specifications.

## Units come tested and ready to install!

# **PR** Optical Splice Enclosure

# Wall Mount Fiber Distribution Enclosures

The Precision Rated Optics Optical Splice Enclosure (OSE) is a wall mounted central splicing and cable management enclosure with a weather tight NEMA 4 design for indoor or outdoor applications. Depending on the tray selected, the enclosure supports up to 24F or 36F single fused fibers and if mass fusing, the enclosure can support >2000 mass fused fibers. Each splice tray incorporates the "open keyhole" hinging mechanism to allow for ease in tray entry without tray removal. The OSE is an enclosure that supports fiber splicing for wall mount applications.

## **Features**

- Polyester powder coat finish in standard black.
- All Corrosion resistant materials.
- Compact design with high splice storage capacity.
- Single outer and removable door.
- Top and bottom mounted cable entry plates supporting up to 8 liquid tight cable seals each.





Part #	WM-AFA-0016-WA	WM-AFB-0012-BS
Splice Tray Capacity	(8)	(12)
Adapter Capacity	(16) Panels	N/A
Style	Wall Mount	Wall Mount
Color	Off White	Black
Size (H x W x D) in	31" x 24" x 10"	17" x 21.1" x 5"
Weight	24 lbs	23 lbs
Material	.063 Aluminum powder coated	16 GA steel
Price	\$454.26	\$166.52

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.

Part #	WM-AFC-0016-BA
Splice Tray Capacity	(16)
Adapter Capacity	N/A
Style	Wall Mount
Color	Black
Size (H x W x D) in	28" x 25.25" x 14.5"
Weight	47 lbs
Material	.080 Aluminum
Price	\$934.01

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.



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# **PR** NEMA Rated Dual Door

# Wall Mount Fiber Distribution Enclosures

Precision Rated Optics NEMA enclosures are constructed for either indoor or outdoor use to provide a degree of protection to personnel against access to hazardous parts. They provide a degree of protection of the equipment inside the enclosure against ingress of falling dirt, windblown dust as well as harmful effects on the equipment due to the ingress of water (rain, sleet, snow, splashing water, and hose directed water). These enclosures will remain undamaged by the external formation of ice.

## **Features**

- Aluminum construction.
- Impact and weather resistance plastic.
- Polyester powder coat finish in standard tan
- All Corrosion resistant materials.





Part #	WM-AGA-0402-TA	WM-AGB-0404-TA
Splice Tray Capacity	(2)	(2)
Adapter Capacity	(2) Panels	(4) Panels
Style	NEMA wall mount	NEMA wall mount
Color	Tan	Tan
Size (H x W x D) in	13" x 13.7" x 5.75"	14" x 14" x 7"
Weight	12 lbs	14 lbs
Material	.08 powder coated aluminum	.08 powder coated aluminum
Price	\$276.15	\$325.88

\*All enclosures ordered do not include adapter panels, splice trays or pigtails.





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\*All enclosures ordered do not include adapter panels, splice trays or pigtails.

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# SPLICE TRAYS

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# **PR** Splice Trays

The Precision Rated Optics splice trays are universal to the industry. These trays are compatible with all of our enclosures. The splice trays provide protection and organization of fiber splices. Adhesive backed fiber insert holders and assorted cable ties included (grommets included on the 3030-SSTP).

	\$19.73	\$23.15	\$27.63	Cover \$20.87
Material	Aluminum	Aluminum	Aluminum	Plastic Base w/ Aluminum
Capacity	12 Single Fusion Splices	24 Single Fusion Splices	24 Single Fusion Splices	24 Single Fusion Splices
Weight	Approx. 0.35 lbs.	Approx. 0.65 lbs.	Approx. 0.54 lbs.	Approx. 0.54 lbs.
Size (H x W x D) in	6.5" x 4.75" x .5"	11.75" x 4" x .5"	7.75″ x 6″ x .5″	12.25" x 4" x .5"
Description	12 Single Fusion Splice Tray	24 Single Fusion Splice Tray	24 Single Fusion Splice Tray	24 Single Fusion Splice Tray
Part #	ST-12AA0645S	ST-24AA1145S	ST-24AA0765S	ST-24AP1245S
		88		BB

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Part #	ST-24PP0855S	ST-24PP0945S	ST-36PP1055S	ST-12PP0627S
Description	24 Single Fusion Splice Tray	24 Single Fusion Splice Tray	36 Single Fusion Splice Tray	12 Single Fusion Splice Tray
Size (H x W x D) in	8.25″ x 5.75″ x .5″	9.75 x 4.5" x .5"	10.75" x 5.75" x .5"	6" x 2.75" x .75"
Weight	Approx. 0.50 lbs.	Approx. 0.60 lbs.	Approx. 0.60 lbs.	Approx. 0.10 lbs.
Capacity	24 Single Fusion Splices	24 Single or 48 Dual Stacked	36 Single, 72 Dual Stacked or 144 Mass Fusion	12 Single Fusion Splices
Material	Plastic	Plastic	Plastic	Plastic
Price	\$19.66	\$19.66	\$25.81	\$15.03



# ADAPTER PLATES

# **PR** Loaded Adapter Panels

	Part #	Conn. Type	# Of Conn.	Ferrell	Mode	Plate Color	Price	
	ADP-6SC-M6		_	Carrie	ММ	Black	<i>416.04</i>	
	ADP-6SC-M6-OW	SC	6	6 Ceramic		Off White	\$16.94	
	ADP-8SC-M6	- SC 8		Correnaia	мм	Black	622.50	
· [[]]	ADP-8SC-M6-OW			8 Ceramic		Off White	\$22.59	
	ADP-12SC-M6	SC 12 Ce		Coromic	ММ	Black	\$34.16	
	ADP-12SC-M6-OW	SC	12	Ceramic	IVIIVI	Off White	Ş34.10	
	ADP-6SC-SM	SC	6	Ceramic	SM	Black	\$16.94	
. With strates	ADP-6SC-SM-OW	30	0	Ceramic	5101	Off White	<b>310.94</b>	
00000000	ADP-8SC-SM	SC	8	Ceramic	SM	Black	\$22.59	
A. STREETER	ADP-8SC-SM-OW	30 8				Off White	<i>\$22.37</i>	
Street and	ADP-12SC-SM	SC	SC 12 C		12 Commin	SM	Black	\$34.91
	ADP-12SC-SM-OW	30	12	12 Ceramic		Off White	ə <b>34.</b> 91	
REFERE	ADP-6SCAPC-SM	SC	6	6 Ceramic	Ceramic	SM	Black	\$18.98
	ADP-6SCAPC-SM-OW	30	0		5101	Off White	<b>\$10.90</b>	
20222222	ADP-8SCAPC-SM	SC	8	Ceramic	SM	Black	\$23.68	
	ADP-8SCAPC-SM-OW		0	Cerannic		Off White	\$23.00	
STEE.	ADP-12SCAPC-SM	SC	6	Ceramic	SM	Black	\$36.74	
	ADP-12SCAPC-SM-OW		0	Cerannic	SIVI	Off White	<i>430.74</i>	
88888	ADP-6SC-LOA	SC	6	Ceramic	ММ	Black	\$21.16	
A DECEMBER OF	ADP-6SC-LOA-OW	10 GIG	Ö	ceranne		Off White	21.10	
and the second second	ADP-12SC-LOA	SC	12	Ceramic	ММ	Black	\$33.70	
	ADP-12SC-LOA-OW	10 GIG	12	Ceranne	IVIIVI	Off White	<i>433.</i> 70	

# ADAPTER PLATES

# **PR** Loaded Adapter Panels

	Part #	Conn. Type	# Of Conn.	Ferrell	Mode	Plate Color	Price		
	ADP-12LC-M6	- LC	12	Ceramic	ММ	Black	\$23.98		
<u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u>	ADP-12LC-M6-OW		12	Ceramic		Off White	<b>\$23.</b> 36		
Second second second	ADP-24LC-M6	- LC	24	Ceramic	мм	Black	\$72.86		
E. HARE HARE HARE	ADP-24LC-M6-OW					Off White			
	ADP-12LC-SM	- LC	12	Ceramic	SM	Black	\$51.61		
	ADP-12LC-SM-OW					Off White			
LANN ADD DOD	ADP-24LC-SM	- LC	24	Ceramic	SM	Black	\$75.03		
Addy deed seedy	ADP-24LC-SM-OW					Off White			
	ADP-12LC-LOA	LC 10 GIG	12	Ceramic	мм	Black	\$29.60		
	ADP-12LC-LOA-OW					Off White			
	ADP-24LC-LOA	LC 10 GIG	24	Ceramic	мм	Black Off White	\$53.04		
Color Coone Coone	ADP-24LC-LOA-OW ADP-6ST-M6	- ST	6	Ceramic	мм	Black	\$16.04		
the second second second second	ADP-6ST-M6-OW	31	0	Ceramic		Off White	\$16.94		
In Caracaran	ADP-6ST-SM	- ST	6	6 Ceramic	SM	Black	\$18.98		
-	ADP-6ST-SM-OW					Off White			
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ADP-8ST-M6	- ST	8	Ceramic	мм	Black	\$19.08		
In the the second	ADP-8ST-M6-OW ADP-8ST-SM					Off White Black			
- Co To To To To	ADP-8ST-SM-OW	- ST	8	Ceramic	SM	Off White	\$30.06		
	ADP-12ST-M6							Black	
000000	ADP-12ST-M6-OW	- ST	12	Ceramic	MM	Off White	\$26.57		
	ADP-12ST-SM	67		<i>.</i> .		Black			
	ADP-12ST-SM-OW	ST	12	Ceramic	SM	Off White	\$37.95		
	ADP-6FC-M6	- FC	6	Ceramic	ММ	Black	\$30.06		
In the local division of the local division of the	ADP-6FC-M6-OW					Off White			
accurate the second	ADP-6FC-SM	- FC	6	Ceramic	SM	Black	\$40.99		
-	ADP-6FC-SM-OW ADP-8FC-M6					Off White			
	ADP-8FC-M6-OW	- FC	8	Ceramic	мм	Black Off White	\$36.43		
A CONTRACT	ADP-8FC-SM					Black			
and	ADP-8FC-SM-OW	- FC	8	Ceramic	SM	Off White	\$54.65		
	ADP-12FC-M6	FC	12	Constants		Black	662.24		
CARBBB.	ADP-12FC-M6-OW	- FC	12	2 Ceramic	MM	Off White	\$62.24		
	ADP-12FC-SM	- FC	12	12 Ceramic	SM	Black	\$83.49		
	ADP-12FC-SM-OW					Off White	*		
- BBBBB	ADP-12MTRJ-M6	- MTRJ	6	Phos. Bronze	мм	Black	\$17.70		
	ADP-12MTRJ-M6-OW					Off White			

877-529-9114 sales@fiberoptic.com



# ADAPTERS

# **PR** Fiber Optic Adapters

	Stock ID	Туре	Fiber Polish	Mode	Sleeve Material	Color	Foot Print	Price
	CA-S-ST-M2SMB	ST	UPC	SM	Phos. Bronze	Chrome	ST	\$1.25
	CA-S-ST-S2SMZ	ST	UPC	ММ	Zirconia	Chrome	ST	\$1.45
	CA-S-FC-M2SMB	FC	UPC	ММ	Phos. Bronze	Chrome	FC	\$2.30
	CA-S-FC-S2SMZ	FC	UPC	SM	Zirconia	Chrome	FC	\$3.35
	CA-S-FC-A2SMZ	FC	APC	SM	Zirconia	Chrome	FC	\$3.75
Ca D	CA-S-SC-M6SPB	SC Simplex	UPC	ММ	Phos. Bronze	Beige	SC Simplex	\$1.15
the state	CA-S-SC-M7DPB	SC Duplex	UPC	ММ	Phos. Bronze	Beige	SC Duplex	\$3.25
	CA-S-SC-S6SPZ	SC Simplex	UPC	SM	Zirconia	Blue	SC Simplex	\$2.25
	CA-S-SC-S7SPZ	SC Duplex	UPC	SM	Zirconia	Blue	SC Duplex	\$3.25
See.	CA-S-SC-A6SPZ	SC Simplex	APC	SM	Zirconia	Green	SC Simplex	\$2.25
23	CA-S-SC-A7SPZ	SC Duplex	APC	SM	Zirconia	Green	SC Duplex	\$3.75
	CA-S-SC-G6SPB	SC Simplex 10 GIG	UPC	ММ	Zirconia	Aqua	SC Simplex	\$1.75
S. S.	CA-S-SC-G7DPB	SC Duplex 10 GIG	UPC	ММ	Zirconia	Aqua	SC Duplex	\$2.75
1	CA-S-MT-M6SPB	MTRJ	UPC	ММ	Phos. Bronze	Black	MTRJ	\$1.65
THE.	CA-S-LC-M6SPB	LC Duplex	UPC	ММ	Phos. Bronze	Beige	LC Duplex	\$3.25
E	CA-S-LC-M7DPB	LC Quad	UPC	ММ	Phos. Bronze	Beige	SC Duplex	\$6.00
1000	CA-S-LC-S6SPZ	LC Duplex	UPC	SM	Zirconia	Blue	LC Duplex	\$4.72
4E	CA-S-LC-S7DPZ	LC Quad	UPC	SM	Zirconia	Blue	SC Duplex	\$9.45
1 Cos	CA-S-LC-G6SPB	LC Duplex 10 GIG	UPC	ММ	Zirconia	Aqua	SC Simplex	\$3.25
A THE	CA-S-LC-G7DPB	LC Quad 10 GIG	UPC	ММ	Zirconia	Aqua	SC Duplex	\$6.00

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# **PR** Pigtail Packs For Rack and Wall Mount Enclosure

Part #	# 1 Connector	# 2 Connector	Cable Core/Clad	Cable Jacket	Cable Color	Length (m)	Price
SPK-6SCUPC	(6) SC/UPC	(6) Pigtails	9/125µm	900µm	Multi	2	\$40.00
SPK-12SCUPC	(12) SC/UPC	(12) Pigtails	9/125µm	900µm	Multi	3	\$80.00
SPK-6SCAPC	(6) SC/APC	(6) Pigtails	9/125µm	900µm	Multi	2	\$45.00
SPK-12SCAPC	(12) SC/APC	(12) Pigtails	9/125µm	900µm	Multi	3	\$85.00
SPK-6SC-M6	(6) SC/APC	(6) Pigtails	62.5/125µm	900µm	Multi	2	\$40.00
SPK-12SC-M6	(12) SC/APC	(12) Pigtails	62.5/125µm	900µm	Multi	3	\$80.00
SPK-6STUPC	(6) ST/UPC	(6) Pigtails	9/125µm	900µm	Multi	2	\$40.00
SPK-12STUPC	(12) ST/UPC	(12) Pigtails	9/125µm	900µm	Multi	3	\$80.00
SPK-6ST-M6	(6) ST/UPC	(6) Pigtails	62.5/125µm	900µm	Multi	2	\$40.00
SPK-12ST-M6	(12) ST/UPC	(12) Pigtails	62.5/125µm	900µm	Multi	3	\$80.00
SPK-6LCUPC	(6) LC/UPC	(6) Pigtails	9/125µm	900µm	Multi	2	\$55.00
SPK-12LCUPC	(12) LC/UPC	(12) Pigtails	9/125µm	900µm	Multi	3	\$95.00
SPK-6LC-M6	(6) LC/UPC	(6) Pigtails	62.5/125µm	900µm	Multi	2	\$55.00
SPK-12LC-M6	(12) LC/UPC	(12) Pigtails	62.5/125µm	900µm	Multi	3	\$90.00



SPK-6SCAPC



SPK-12SCUPC

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# **OCC<sup>®</sup>** Open Frame Racks

When it comes to standard EIA-compliant aluminum open-frame relay racks, OCC offers top-of-the-line relay racks that feature a variety of heights to meet any cabling infrastructure needs. Ideal for equipment rooms and telecommunications closets, our open frame rack is an excellent foundation to build any network system.

#### **ORDERING INFORMATION** Open Frame Racks

25″H x 19″W x 3″D 36 RU	\$121.00
"H x 19"W x 3"D 45 RU	\$149.30
	25″H x 19″W x 3″D 36 RU ″H x 19″W x 3″D 45 RU

\* Additional dimensions available

# **OCC**<sup>®</sup> Wall Mount Enclosures

When networks need added security for wall-mounted applications, OCC offers wall-mount cabinet enclosures. The OCC Wall-mount Enclosures feature a locking smoked Plexiglas<sup>™</sup> or steel front door, two adjustable shelf mounting rails and a locking rear swing frame with heavy-duty guick-release hinges for easy wall-mounting and fast access to the rear of installed equipment.

#### **ORDERING INFORMATION** Wall Mount Enclosures

WC828	15″H x 21″W x 20″D	8 RU 125 lbs load rating	\$460.05
WC1228	24″H x 21″W x 20″D	12 RU 125 lbs load rating	\$469.25
WC1828	36″H x 21″W x 20″D	18 RU 125 lbs load rating	\$598.93
WC2428	45″H x 21″W x 20″D	24 RU 175 lbs load rating	\$649.28

\* Additional dimensions available

# **OCC**<sup>®</sup> Freestanding Cabinets

With OCC's complete line of free-standing cabinets, customers can provide seamless, upscale integration for any size network installation. This cabinet line offers a broad variety of solutions to fit any system application and the finest quality workmanship with the flexibility to meet any infrastructure demand.

#### **ORDERING INFORMATION** Freestanding Cabinets

CC1203	24"H x 25"W x 24"D 12 RU 240 lbs load rating	\$850.66
CC2403	48"H x 25"W x 24"D 24 RU 480 lbs load rating	\$1,067.67
CC2404	48"H x 25"W x 32"D 24 RU 480 lbs load rating	\$1,284.67
CC4503	84"H x 25"W x 24"D 45 RU 900 lbs load rating	\$1,602.37
CC4504	84"H x 25"W x 32"D 45 RU 900 lbs load rating	\$1,701.32

\* Additional dimensions available

# Also available is a full line of accessories

- Wall mount swing gate racks
- Shelves
- Vertical and horizontal wire management
- Power strips
- Wall mount patch panel brackets

#### **Features**

- 3" deep vertical channels are tapped on front and back for #12-24 pilot point combo head screws
- 7/8" holes for floor bolting
- Sturdy aluminum construction
- Available in durable black powder-coat finish or silver coating



#### Features

- Removable doors Two adjustable shelf
- mounting rails Solid steel or locking smoked
- Plexiglas doors available Vented sides and top
- Accepts fan tray kits





#### Features

- Removable sides and doors
- Four adjustable mounting rails
- Vented top with three 3" diameter cable-entry points
- Universal ÉlÀ alternating 5/8", 5/8" 1/2" hole pattern
- All aluminum frame construction
- Black powder-coat finish
- Smoked Plexiglas locking front door
- Solid steel, locking, vented rear door Leveling feet standard; locking
- casters optional
- Includes #12-24 pilot-point combo-head screws



FiberCoptic.com
# MEDIA CONVERTERS & ETHERNET SWITCHES

# Fiber (• ptic.com

CONVERTERS & SWITC

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# TX TO FX MEDIA CONVERTERS

### 10/100BASE-TX TO 100BASE-FX MEDIA CONVERTER

The 1100 series are our most popular media converters. Featuring one fiber port with SC, ST or FC connector and one twisted pair port with a RI-45 Connector. Usable as a stand-alone unit or as a slide–in module to the 19" converter rack (14 bays) for use in a central wiring cabinet. At the speed and price our 1100 units can't be beat.

Standards: IEEE802.3u 100Base-TX/FX	
UTP Cable:	Cat. 5 cable and up to 100m
Fiber Cable:	50/125, 62.5/125 or 100/140m MM 8.3/125, 8.7/125, 9/125 or 10/125 µm SM
Data Transfer:	100Mbps auto-duplex-negotiation 100Mbps for half-duplex mode 200Mbps for full-duplex mode
Ambient Temp:	0~50°C
Humidity:	5-90%
Dimension:	140mm x 110mm x 30mm (Inner power supply) 94mm x 70mm x 26mm(External power supply)
Certification:	ROHS, CE Mark



### ORDERING INFORMATION

MC-1102M	Multimode RJ45/SC, 1310nm, 3 db, 2KM	\$145.00
MC-11255	Singlemode RJ45/SC, 1310nm, 0.5 db, 25KM	\$118.40
MC-1140S	Singlemode RJ45/SC, 1310nm, 0.5 db, 40KM	\$129.50
MC-1160S	Singlemode RJ45/SC, 1310nm, 0.5 db, 60KM	\$148.00
MC-11100S	Singlemode RJ45/SC, 1550nm, 0.25 db, 100KM	\$525.00

### 1000BASE-TX TO 1000BASE-FX MEDIA CONVERTER

FOM-2100 Series Gigabit Media Converter supports two types of media for network connection such as 1000Base-TX and 1000Base-SX/LX fiber.

Standards:	IEEE802.3z AB 1000Base-T, 1000Base-SX/LX
UTP Cable:	Cat. 5 cable and up to 100m
Fiber Cable:	1000 SX: 50/125, 62.5/125 or 100/140µm MM
Fiber:	1000 LX: 8.3/125, 8.7/125, 9/125 or 10/125µm SM 1000 Full-duplex at Auto or Force-mode
Data Transfer:	2000Mbps for Full-duplex at 1000Mbps Speed
Ambient Temp:	0~50°C
Humidity:	5-90%
Dimension:	26.2mm x 81mm x 105mm
Certification:	ROHS, CE Mark



### **ORDERING INFORMATION**

MC-2100M	Multimode RJ45/SC, 850nm, 3 db, .5KM	\$325.00
MC-2120S	Singlemode RJ45/SC, 1310nm, 0.5 db, 20KM	\$407.00
MC-2180S	Singlemode RJ45/SC, 1550nm (DFB), 0.25 db, 80KM	\$728.00

### 10/100/1000BASE-TX TO 1000BASE-FX MEDIA CONVERTER

With link fault pass through (LFP) in TX/FX converter application, link status on one port is propagated to the other port to notice the remote nodes. In addition, both converters will be with forced mode on the TP port and with SC fiber port.

Standards:	IEEE802.3 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3z/ab 1000Base-T, IEEE802.3x full-duplex flow control, 1000Base-SXLX
UTP Cable:	Cat. 5 cable and up to 100m
Fiber Cable:	1000 SX: 50/125, 62.5/125 or 100/140µm MM 1000 LX: 8.3/125, 8.7/125, 9/125 or 10/125µm SM
Data Transfer:	2000Mbps for Full-duplex at 1000Mbps Speed
Ambient Temp:	0~50°C
Humidity:	5-90%
Dimension:	26.2mm x 81mm x 105mm
Certification:	ROHS, CE Mark



### **ORDERING INFORMATION**

MC-2200M	Multimode RJ45/SC, 850nm, 3 db, .5KM	\$325.00
MC-2220S	Singlemode RJ45/SC, 1310nm, 0.5 db, 20KM	\$450.00
MC-2280S	Singlemode RJ45/SC, 1550nm (DFB), 0.25 db, 80KM	\$760.00

# ETHERNET SWITCHES

### Features

- 2 or 4 port 10/100M RJ-45
- 1 port 100Base-Fx (singlemode/multimode/wdm) optical port
- Store and forward mode
- 10/100M auto-negotiation, maximum speed to 20/200M (full-duplex)
- Supports IEE 802.3z full-duplex flow control & back pressure half-duplex flow control
- Supports MAC self-learning
- Automatic MDI/MDI-X configuration
- LED status of FX TX1, TX2, TX3, TX4 link and power on diagnosis function

### **ORDERING INFORMATION**

-	ES-1100M2	2 port 10/100Mbps,	1XSC Multimode Fiber Switch	\$159.00
	ES-1125S2	2 port 10/100Mbps,	1X SC Singlemode 25KM Fiber Switch	\$229.00

# MEDIA CONVERTERS & ETHERNET SWITCHES

# SINGLEMODE AND MULTIMODE MEDIA CONVERTERS

The 100M Single and Multi-Mode Converter conducts the transparent conversion between the media of single and multi-mode optical fiber. It may switch over among 850nm, 1310nm multi-mode fiber (2km) and 1310, 1550nm single mode fiber (120km) and support 100m quick Ethernet. It is widely used in the interlinking and data communication fields of LAN and WAN and the single unit may be used for the single and multi-mode conversion.

Conforms to the IEEE802.3u 100BASE-TX/FX

2000Mbps for Full-duplex at 1000Mbps Speed

FX connectors are all SC

94mm x 70mm x 26mm



OPDEPING	INFORMATION
ONDLINING	

MC-1020MS25	Multimode to Singlemode, 1310/1550, SC, 2KM/120KM	\$277.50
MC-2020MS	Multimode to Singlemode, 850/1310, SC, 500m/0-80KM	\$525.00

Other configurations and distances available upon request

# **Typical Application**

0-65°C

5-90%



### **UNMANAGED 14/16-SLOT CHASSIS**

This multi-media converter chassis is designed to accommodate 14 or 16 slide-in modules of various type of media converter at a central location for multiple segment cross connection. Users can transparently link backbone equipment such as switches, routers to LAN workgroup segments. Because each channel operates independently, new modules may be added as required. This flexibility allows the unit to grow with the network.

Standards	IEEE802.3u 10/100Base-FX
Slot Capacity	14 or 16 Slots for Modular Media converter (Per slot DC Power Output: 1A @ + 5VDC)
Ambient Temperature	0~50C
Humidity	5~90%
Dimension	90(H) x 424(W) X 230(D) mm (mountable for 19-inch rack)

### ORDERING INFORMATION

MC-16AC	Unmanaged 16-Slot Chassis for Modular Media converter, 100~240VAC Power Input, AC-DC Redundant Dual power	\$490.00
MC-14AC	Unmanaged 14-Slot Chassis for Modular Media converter, 100~240VAC Power Input, AC-DC Redundant Dual power	\$370.00
MC-16DC	Unmanaged 16-Slot Chassis for Modular Media converter, 4-8VDC Power Input, Telecom DC-DC Redundant Dual power	\$625.00
MC-14DC	Unmanaged 14-Slot Chassis for Modular Media converter, 4-8VDC Power Input, Telecom DC-DC Redundant Dual power	\$200.00

### Purchase Fully Loaded Chassis - Call For Details

Standards: Fiber Cable:

Data Transfer:

Ambient Temp:

Humidity:

Dimension:

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STREET BERGE

# JDSU WAVEREADY 3100 1U, TWO MODULE SHELF

The JDSU WaveReady 3100 is a 1U, two-slot, rack-mount shelf that is ideally suited for remote terminal and stand-alone network applications. The WaveReady 3100 provides power, monitoring, cooling, and management for all available WaveReady 3000-series modules. The remote management capabilities of the unit lowers support costs while its low profile (1.75 inches) reduces space requirements, thus lowering operating expenditures. Its daisy-chaining capability offers pay-as-you-grow transition path up to fivemodule systems. This approach allows service providers to plan their capital expenditures in line with their budgets and customer demands. External interfaces on the backplane include a standard five-position terminal block, a DB-25 connector for aggregated major and minor alarm relays, one sensor input for each module, three DB-15 connectors for inter-shelf connection, and an RJ45 Ethernet connector for management connectivity. Power is supplied through a standard five-

position terminal block for the DC version and IEC320 cables for the AC version.

### **ORDERING INFORMATION**

DMS-3100DC004	WAVEREADY 3100 1U, TWO MODULE SHELF	\$1,785.00
DMS-3100AC002	WAVEREADY 3100 1U, TWO MODULE SHELF	\$2,625.00

### **ADDITIONAL PARTS**

FAN MODULE
REPLACEMENT AIR FILTER KIT (FILTER AND HARDWARE)
REPLACEMENT AIR FILTERS
110 V AC TO -48 V DC POWER SUPPLY (1.25) FOR USE WITH DMS-31000DC002 SHELF
90 TO 264 V AC, 47-63 Hz to -48 dc power supply, continen- tal Europe power plug for use with DMS-3100DC004 shelf
90 TO 264 V AC, 47-63 Hz to -48 dc power supply, Great Britain power plug for use with DMS-3100DC004 shelf

**\*CALL FOR PRICING\*** 

# JDSU WaveReady 3500-F 14 slot Platform

The WaveReady 3500-F is a fan-cooled optical provisioning platform targeted for metro access/edge and Inter-Office Fiber (IOF) applications. It accommodates up to 13 WaveReady modules managed by a WaveReady communications module in slot C. The WaveReady 3500-F supports a broad range of WaveReady modules including the WSH-200 series transponders,WSH-500 series any-rate transponders,WRT-700 series multirate transponders, with and without protection, and single channel and multichannel DWDM amplifiers. It also supports DWDM and CWDM mux/demux cassettes and or one, two-, or four-channel OADM cassettes. The WaveReady 3500-F provides power,

cooling and a communications bus for all modules in the shelf. The communications module handles monitoring, management and configuration of each module in the shelf. This design reduces installation time for individual WaveReady modules.

External interfaces include a standard five-position terminal block, two 25-pin DB-25 connectors for aggregated major and minor alarm relays, and sense inputs for each module. The WaveReady communications module allows local and remote management through a DB-9/RS-232 port on the front panel and three RJ-45 Ethernet connectors. Both TL1 and SNMP based management are supported. The WaveReady 3500-F comes configured for installation in 19-inch, 23-inch, or ETSI telecommunication racks

### **ORDERING INFORMATION**

DMS-3500FSE03 WaveReady 3500-F 14 slot Platform

### \*CALL FOR PRICING\*

Parameter	DMS-3100DC004 (DC)	DMS-3100AC002 (AC)			
Electrical Characteristics DC supply voltage	-48 V DC standard five- position terminal block located on the rear of unit	N/A			
AC power supply	N/A	AC power is supplied through two IEC 320 cables connected to rear of shelf			
Size IU high (19-in config.) HxWxL	1.75 x 17.4 x 11.8 in	1.75 x 17.4 x 17 in			
Weight					
Empty	4.1 lb	7.0 lb			
With two modules	6.6 lb	9.5 lb			
Environmental Characteristics					
Operating Temp.	-5 to 55 <sup>0</sup> C	0 to 40 <sup>0</sup> C			
Storage Temp.	-40 to 85 <sup>0</sup> C	-40 to 85 <sup>0</sup> C			
Relative humidity (non- condensing)	5 to 95% 5 to 95%				
Interface					
Configuration	DB-15 connectors for inter-si tion. Subtending cable include	helf connection and communica- ded.			
Local and remote man- agement	RS232/DB-9 connector on front panel of optional WaveReady communications module for craft management of modules in the shelf or suspending shelves. RJ45 Ethernet connector on backplane enabled when a WaveReady Communications Module is installed in the shelf or a parent shelf.				
Alarms	Dry contact on individual WaveReady modules. Relays open under normal operation. Relays closed when power is off and alarm is active. DB-25 connector on the backplane for aggre- gated major alarm relays and sensor input for each module.				
Front panel	Seven LEDs: Fan 1 (fan statu:	s); Fan 2 (fan status); DC Power			

A (power supply A); DC power B (power supply B); Shelf 1 (shelf configuration); Shelf 2 (shelf configuration); Shelf 3 (shelf configuration).



Specifications	Minimum	Typical	Maximum		
Electrical Characteristics					
DC supply voltage	Redundant, -48V, front access				
Power connectors	Standard four-position	on terminal block, -48V, side of the shelf	on the front, right-hand		
Fuses		Two 12 A indicating			
Overall power dissipation					
Fan unit	-	-	50 W		
Fully populated shelf	-	240 W	330 W		
Cooling	Provided through a fan tray with six replaceable fans located at the top shelf. The cooling unit allows a power dissipation of 20 W per slo				
Power cables	14 AWG	-	12AWG		
Physical Dimensions					
19 in. configuration	-	7U high	-		
Size (H x W x L)	31.1 :	x 44 x 28 cm (12.2 x 17.	4 x 11 in)		
Weight empty		9.5 kg (21 lbs)			
Weight fully populated with WaveReady		34 kg (75 lbs)			
Fan weight		1.8 kg (4 lbs)			
Capacity	One communications module in slot C., Thirteen WaveReady modules in slots 1 to 13				
Environmental Characteristics					
Operating ambient Temp	-5 <sup>0</sup> C	-	55 <sup>0</sup> C		
Storage Temp	-40 <sup>0</sup> C	-	85 <sup>0</sup> C		
Relative humidity (non-condensing)	5%	-	95%		

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# PACKETLIGHT MODULE SHELVES

# **10G WDM SOLUTIONS - PL-1000**



The PL-1000 is a carrier class leading 1U Metro DWDM platform, for transport of 10G Data, Voice and Storage Applications, over dark fiber and WDM networks. PL-1000 is designed primarily to address the growing needs for high data capacity applications such as IPTV, Triple play and NGN which needs to be transported over the same existing or new fiber infrastructures. The PL-1000's capabilities, dimensions and competitive cost make it the ideal solution for evolving metro Ethernet networks, enterprise networks, campus environments and central office connectivity. The PL-1000 supports up to 4 high-speed 10G services. Each service is configured independently, using PacketLight's user-friendly Web-based management tool. Additionally, by stacking multiple PL-1000, customers can expand 4 wavelengths to up to 32 wavelength thus achieving high level of scalability and low initial investment in a pay-as-you grow architecture.

### FEATURES

Up to 4x10G protected services

Flexible multirate Multi-Mode (MM) or Single Mode (SM) interfaces support
10G Eth WAN/LAN, STM64/OC192, OTN (OTU-2), 10G FC
Two embedded Optical Supervisory Channels (OSC) for management
Performance monitoring for STM64/OC192, 10G FC and 10G Eth WAN/LAN

Integrated Mux/Demux and Optical Amplifier (EDFA)

- •Mapping 10G Eth and STM64/OC192 services into OTN (OTU-2)
- •Dual pluggable AC or DC power supplies and FAN unit
- •Ring, point to point and regeneration topologies
- 1+1 facility protection
- •Web GUI and SNMP and EMS management as well as 3rd party SNMP tools

\*CALL FOR PRICING\*

System		DWDM Link	c		
Topology	Point-to-Point, Ring, Linear ADM	Link Attenuat	ion	<4dB (Mux + DeM	/lux)
Transport Network Medium	Metro CWDM/DWDM / Dark Fiber	Optical Superv Channel	visory	1490nm, 1510nm	1
Software Upgrade	Traffic Hitless – dual image	Optical Reach		40, 80, 120, 200k	٢m
Protection	1+1 Facility	Optical Power	Output	-1dBm (min) to +2	2dBm (max)
Product Options		Sensitivity		-24dBm APD, -18	dBm PIN
Transponder	850/1310nm to DWDM, 3R, 2/4 wavelengths Mux & Demux	Optical Monite	oring	Tx & Rx power	
Transponder + Booster Amp	850/1310nm to DWDM, 3R, 2/4 wavelengths Mux Demux, 1/2 EDFA (Booster, Pre-Amp)	Wavelength		ITU-T G.694.1 Ch 100GHz spacing	15 - 60,
Regenerator	DWDM to DWDM 3R, 4 wave- lengths 2 X Mux & 2 X Demux & 2 X EDFA	Environme	ntal		
Physical Dimensions		Operating Ten	nperature	-5o C to 50o C (+ Operational	230 F to+1220 F)
Mounting	19", ETSI and 23"	Humidity		5% to 85% RHI	
Weight	5.5Kg (Max)				
Size	1.77" (1 RU) (H) x 17.32" (W) x 9.05" (D)		ORDERIN		ION
	44 mm (H) x 440mm (W) x 230 mm (D)	-	FOM-PL-10	00-001	10G WDM Solutions - PL-



# 1G/2G/4G FC & FICON, ESCON, GBE

PL-1000E is a unique, all-in-one optical product supporting 8G FC, 10G, and sub-10G services. PacketLight solution is unprecedented with its rich feature set, Cost Effective, compact 1U chassis with low power consumption. PL-1000E is a leading CWDM/DWDM platform that provides maximum flexibility and scalability for fiber optic connectivity, it combines variety of



services. PL-1000E allows to expand to 10G services by simply adding the needed pluggable optic modules (XFPs). This architecture provides true scalability at minimum possible cost. The PL-1000E supports the full spectrum of FC protocol rates: 1Gbps, 2Gbps, 4Gbps, 8Gbps and 10Gbps. Together with its extremely low latency, low power consumption, small foot print (1U, ETSI) and affordable cost PL-1000E is best in class CWDM/DWDM solution for connecting two data centers or back up sites. The PL-1000E is designed to support point-to-point, Linear ADM and Ring topologies with Facility protection. The PL-1000E is a highly integrated device, incorporating Mux/DeMux, EDFA and optical switch for both its transponder and regenerator modes, also enabling simple and cost effective upgrade of existing infrastructure to carry any type service.

### FEATURES:

- Combines any service and common protocols from 2Mbps up to 10G services in the same 1U chassis
- Supports up to 4 sub 10G services in any mix- 1G/2G/4G FC & FICON, ESCON, Fast Ethernet, GbE, STM-1/OC-3, STM-4, OC-12, STM-16/OC-48, OTU1 (OTN), Video
- In addition, supports up to 4 services of 10G or 8G FC, 10G Eth, STM-64/OC-192 and optional OTU-2 OTN Performs bidirectional 3R on each transponder ensuring error free
- operation over distance

- Increase fiber utilization using 4xGbE Muxponder
- Low latency connectivity, ideal for trading applications and syn chronous Data Center Replication
- Remote management with both optical supervisory channels and in-band management uplinks
- Supports single and dual fiber connections
- Support for 1+1 facility protection Performance Monitoring
- **DWDM Link** System ITU-T G.694.1 Channels 15-60, Point-to-point, Ring, Linear ADM Topology Wavelength Dual or Single Fiber 100GHz spacing Transport Network Medium Metro CWDM, DWDM & Dark Fiber **Optical Supervisory Channel** 1490nm, 1510nm Protection 1+1 Facility **Optical Monitoring** Tx & Rx power **Product Options Optical Output Power** Sub 10G: 0dBm (min) to +4dBm (max) 8/10G: -1dBm (min) to +2dBm (max) Transponder 850/1310nm to C/DWDM, 3R, Sensitivity Up to 2.66Gbps: -28 dBm APD 4/8 wavelengths Mux & Demux 4/8/10G: -24dBm APD, -14dBm PIN 400Km for 1.25Gbps, 200Km for 850/1310nm to DWDM, 3R, **Optical Reach** Transponder + Amp 4/8 wavelengths Mux Demux, 2.66Gbps, 80Km for 4.25Gbps/8.5Gbps, 120km for 10Gbps 1 EDFA (Booster, Pre-Amp) Muxponder 4x GbE 850/1310nm Link Attenuation <4dB (Mux + DeMux) **Optical Switch** 1+1 OTS Facility Protection **Physical Dimensions** 1.77" (1 RU) (H) x 17.32"(W) x 9.05"(D) **CWDM Link** Size 45 mm (H) x 440mm (W) x 230 mm (D) Wavelength ITU-T G.694.2 1270-1610nm 5.5Kg (Max) Weight 20nm spacing 19", ETSI and 23" For 8 Channels- 1310nm, 1330nm **Optical Supervisory Channel** Mounting For 16 Channels- 1270nm, 1290nm **Optical Reach** 120Km for 1.25Gbps, Environmental 80Km up to 4.25Gbps, -50 C to 500 C (+230 F to+1220 F) **Optical Output Power** 0dBm (min) to +5dBm (max) **Operating Temperature** Operational -28dBm APD, -18dBm PIN 5% to 85% RHI Sensitivity Humidity **Optical Monitoring** Tx & Rx power Link Attenuation <4dB (Mux + DeMux) **ORDERING INFORMATION**

FOM-PL-1000E-01

1G/2G/4G FC & FICON, ESCON, GbE

### \*CALL FOR PRICING\*



# **PACKETLIGHT** MODULE SHELVES

# **PASSIVE WDM SOLUTIONS - PL-300**

The PL-300 family of products extend PacketLight's optical network solution capabilities by providing a wide range of passive optical modules. The PL-300 provides the needed optical layer functions of 4/8/16/32 DWDM wavelength Multiplexing, 4/8/16 CWDM wavelength Multiplexing, Optical Dispersion Compensation module (DCM), Optical Add and Drop (OADMS), splitter and combiners. The PL-300 interconnects seamlessly with PacketLight's products PL-400 and PL-1000 and third party WDM products to form cost effective high capacity DWDM and CWDM solutions. The PL-300 provides low granularity wavelengths add and drop capabilities and can be used to increase 4G and 10G solution reach.

### Features

- Expansion of existing Fiber capacity with new services
- Building scalable high capacity pay as you grow optical networks
- Convergence of existing networks and new services over existing infrastructure
- Forming low cost fully passive optical solution, transparent to service rate & type
- Extending the optical reach with dispersion compensators
- Building cost effective add and drop networks



### **ORDERING INFORMATION**

FOM-PL-300-0001

Passive WDM Solutions - PL-300

### **\*CALL FOR PRICING\***

DCM		Environmental	
Fiber Type	G.652	Operating Temperature	-5oC to +65oC (+23oF to +149oF) Operational
Fiber Span	20Km - 200Km	<b>Physical Dimensions</b>	
Wavelengths Range	1527nm-1567nm	Size	1.77" (1 RU) (H) x 17.32"(W) x 9.05"(D) 45 mm (H) x 440mm (W) x 220 mm (D)
Residual Dispersion	< +/- 2%	Weight	3.5Kg (Max)
Max Insertion Loss	3dB	Splitters/Combiners	
PMD	<1.2ps	Insertion Loss - DWDM	1.5dBm
Standard	ITU G.671	Insertion Loss - CWDM	0.8dBm
Max Insertion Loss	3dB	Insertion Loss - 1310nm	<1.5dBm
PMD	<1.2ps	Standards	ITU G.671
Standard	ITU G.671		

### PL-300 CWDM

Standards	ITU G.694.2, TU G.671					
Description	Order Code CWDM	# MUX WLs	COM Fiber	MUX 1 [nm]	MUX 2 [nm]	Insertion Loss
CWDM 4ch Mux/Dmux	CWDM-1M-4W-1C-2F	4	Dual Fiber	1471-1531		<4db
CWDM 8ch Mux/Dmux	CWDM-1M-8W-1C-2F	8	Dual Fiber	1471-1611		<4db
CWDM 16ch Mux/Dmux	CWDM-1M-16W-1C-2F	16	Dual Fiber	1311-1611		<6db
2 x CWDM 4ch Mux/Dmux	CWDM-2M-4W-2C-2F	4	Dual Fiber	1471-1531	1471-1531	<4db
2 x CWDM 8ch Mux/Dmux	CWDM-2M-8W-2C-2F	8	Dual Fiber	1471-1611	1471-1611	<4db
2 x CWDM 16ch Mux/Dmux	CWDM-2M-16W-2C-2F	16	Dual Fiber	1311-1611	1311-1611	<6db
Single Fiber CWDM 8ch Mux (4 services)	CWDM-1M-8W-1C-1F	8	Single	1471-1611		<4db
Single Fiber CWDM 16ch Mux (8 services)	CWDM-1M-16W-1C-1F	16	Single	1311-1611		<6db
2 x Single Fiber CWDM 8ch Mux (2x 4 services)	CWDM-2M-8W-2C-1F	8	Single	1471-1611	1471-1611	<6db
2 x Single Fiber CWDM 16ch Mux (2x 8 services)	CWDM-2M-16W-2C-1F	16	Single	1311-1611	1311-1611	<6db

PL-300 DWDM							
Standards	ITU G.694.2, TU G.671	TU G.671 Spacing- 100GHz			Wavelengths	Wavelengths Range- C Band	
Description	Order Code CWDM	# MUX WLs	COM Fiber	MUX 1 [nm]	MUX 2 [nm]	Insertion Loss	
DWDM 4ch Mux/Dmux	DWDM-1M-4W-1C-2F	4	Dual Fiber	CH28-CH31	MUX 2 [nm]	<4db	
DWDM 8ch Mux/Dmux	DWDM-1M-8W-1C-2F	8	Dual Fiber	CH28-CH35		<4db	
DWDM 16ch Mux/Dmux	DWDM-1M-16W-1C-2F	16	Dual Fiber	CH20-CH35		<6db	
DWDM 32ch Mux/Dmux	DWDM-2M-32W-1C-2F	32	Dual Fiber	CH20-CH51	1471-1531	<7db	
DWDM 40ch Mux/Dmux	DWDM-2M-40W-1C-2F	40	Dual Fiber	CH20-CH59	1471-1531	<7db	
2 x DWDM 4ch Mux/Dmux	DWDM-2M-4W-2C-2F	4	Dual Fiber	CH28-CH31	CH28-CH31	<4db	
2 x DWDM 8ch Mux/Dmux	DWDM-2M-8W-2C-2F	8	Dual Fiber	CH28-CH35	CH28-CH35	<4db	
2 x DWDM 16ch Mux/Dmux	DWDM-2M-16W-2C-2F	16	Dual Fiber	CH20-CH35	CH20-CH35	<6db	
Single Fiber DWDM 8ch Mux (4 services)	DWDM-1M-8W-1C-1F	8	Single	CH28-CH35		<4db	
Single Fiber DWDM 16ch Mux (8 services)	DWDM-1M-16W-1C-1F	16	Single	CH20-CH35		<6db	
Single Fiber DWDM 32ch Mux (16 services)	DWDM-1M-32W-1C-1F	32	Single	CH20-CH51		<7db	
2 x Single Fiber DWDM 8ch Mux (2x 4 services)	DWDM-2M-8W-2C-1F	8	Single	CH28-CH35	1471-1611	<6db	
2 x Single Fiber DWDM 16ch Mux (2x 8 services)	DWDM-2M-16W-2C-1F	16	Single	CH20-CH35	CH20-CH35	<6db	
2 x Single Fiber DWDM 8ch Mux	DWDM-2M-16W-1C-1F	16	Single	CH21-CH36	CH45-CH60	<6db	
(2x 8 services) Red/Blue							

# PACKETLIGHT MODULE SHELVES

### WDM SUB-10 SOLUTIONS - PL-400



Highly flexible metro C/DWDM platform for transport of storage, data, voice, and video applications over dark fiber and C/DWDM networks. PL-400 is designed primarily as an efficient C/DWDM transport device, and is typically deployed as a CLE (Customer Located Equipment) in enterprise campus environments and in central offices or as service demarcation point for dark fiber provider and carriers. The PL-400 supports up to 8 high-speed services (2Mbps–4.25Gbps). Each service is configured independently using PacketLight's user-friendly Web-based management tool.



### FEATURES:

- CWDM/DWDM Multiplexing of 8 Multi-rate from 2Mbps up to 4.25G client interfaces
   Flexible multirate interfaces support
- GbE, Fast Ethernet, 1/2/4G FC, OC3/STM1, OC12/STM4, OC48/STM16, OTU-1, ESCON, DVB-ASI, SMTP-SDI
- Support for SNMP management and integration into EMS and 3rd party management tools
- Scalable Solution up to 32 Wavelengths

- Built-in EDFA, Mux/DeMux and management channels
- Built-in Performance Monitoring (FC, GbE, STM1/4/16, OC3/12/48)
- Bidirectional 3R ensuring error free operation over distance
- Up to two sets of 4:1 GbE Muxponders
- Supports ring, point to point and regeneration topologies
- Support 1+1 facility protection
- Two embedded OSC for management

System		DWDM Link	
Topology	Point-to-point, Ring, Linear ADM Dual or Single Fiber	Wavelength	ITU-T G.694.1 Channels 15-60, 100GHz spacing
Muxponder	2x 4GbE 850/1310nm	Optical Supervisory Channel	1490nm, 1510nm
Transport Network Medium	Metro CWDM/DWDM / Dark Fiber	Optical Reach	400Km for 1.25Gbps, 200Km for 2.66Gbps, 80Km for 4.25Gbps
Software Upgrade	Traffic Hitless – dual image	Optical Power Output	0dBm (min) to +4dBm (max)
Protection	1+1 Facility	Sensitivity	-28 dBm APD
Product Options		Optical Monitoring	Tx & Rx power
Transponder	850/1310nm to C/DWDM, 3R, 4/8 wavelengths Mux & Demux	Link Attenuation	<4dB (Mux + DeMux)
Transponder + Booster Amp	850/1310nm to DWDM, 3R, 4/8 wavelengths Mux Demux, 1/2 EDFA (Booster, Pre-Amp)	CWDM Link	
Regenerator	C/DWDM to C/DWDM 3R, 8 wavelengths 2X Mux &, 2X Demux & 2X EDFA	Wavelength	ITU-T G.694.2 1270-1610nm, 20nm spacing
Physical Dimensions		Optical Supervisory Channel	For 8 Channels- 1310nm, 1330nm For 16 Channels- 1270nm, 1290nm
Size	1.77" (1 RU) (H) x 17.32"(W) x 9.05"(D) 45 mm (H) x 440mm (W) x 230 mm (D)	Optical Reach	120Km for 1.25Gbps, 80Km up to 4.25Gbps
Weight	5.5Kg (Max)	Optical Power Output	0dBm (min) to +5dBm (max)
Mounting	19", ETSI and 23"	Sensitivity	-28dBm APD, -18dBm PIN
Environmental		Optical Monitoring	Tx & Rx power
Operating Temperature	-5o C to 50o C (+23o F to+122o F) Operational	Link Attenuation	<4dB (Mux + DeMux)
Humidity	5% to 85% RHI		



### ORDERING INFORMATION

FOM-PL-400-0001

WDM Sub-10 Solutions - PL-400

### \*CALL FOR PRICING\*

Packetlight Module Shelves

Fiber(•ptic.com



# NETWORK CAMERAS



i-Pro intelligent and professional IP video security solutions make your network better. Our new i-Pro Series combines Panasonic performance and quality with the latest advancements in IP technology. And with a growing line of IP cameras, network video recorders, video servers, and management software, you can design the system configuration that best meets your needs today - with an eye on expansion tomorrow. Now that's security you can take into the future. Panasonic i-Pro. It's what's on your network that counts.

# **PANASONIC** WEATHER RESISTANT DOME NETWORK CAMERA

WV-NW964

### Features

FiberCoptic.com

- Super Dynamic III delivers 128x dynamic range ensuring accurate image reproduction in any environment
- Progressive output for smooth images
- 360° endless panning (0.065°/s 400°/s)
- 0.5 lux min. illumination color, 0.04 lux B/W
- · Auto tracking, auto image stabilizer
- Digital slip ring ensures picture guality
- Dual MPEG-4 and JPEG streaming
- 30x optical zoom, 10x electronic (300x total)
- · Built-in SD memory card slot for FTP back-up





### OPTIONAL ACCESSORIES AND SUPPLIES

WV-Q122 Wall Mount Bracket

Call for price

# Super Dynamic III Weather Resistant Dome Network Camera



### **ORDERING INFORMATION**

WV-NW964 Weather Resistant Dome Network Camera \$4,491.00

The Package includes: WV-NW964 Camera, Operating Instructions (1 pc), Warranty Card (NTSC only) (1 pc.), CD-ROM (1 pc.), 8P Alarm Cable (1 pc.), Connector for 24 V AC (1 pc.), Front/rear sun shield (1 set), Front/rear sun shield mounting screws (2 pcs), Waterproof cap (3 pcs), RJ-45 junction connector (1 pc.). The IP setup software, the viewer software and the network operating instructions (PDF) are included on the CD-ROM

# **PANASONIC** DOME NETWORK CAMERA

WV-NS202A

### Features

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- Super Dynamic III provides 128x dynamic range ensures accurate image reproduction in any environment
- Progressive output for smooth images of moving objects and superb color reproduction
- 22x optical zoom for accurate capture of objects from long distances
- PoE for transmission of power and signals over the same data cable
- 0.7 lux min. illumination color, 0.5 lux B/W
- Drag-in SD memory card slot for FTP back-up
- Video Motion Detector with 4 programmable detection areas and 3 sensitivity levels • Auto tracking: Pan and tilt automatically controlled to keep moving objects centered
- in screen







Call 877.529.9114 for FiberOptic.com's full line of Panasonic Equipment!

### Super Dynamic III **Dome Network Camera**

### ORDERING INFORMATION

WV-NS202A	Dome Network Camera

\$1,600.00

The Package includes: WV-NS202A Camera, CD-ROM (1 pc), Installation Guide (1 pc.), The IP setup software, the viewer software and the network operating instructions (PDF) are included on the CD-ROM. (1 pc.), Mount Bracket (w/safety wire) (1 pc.), Connector for 24 V AC Fixing Screw (2 pc.), Decorative Cover (1 pc.), DC 12 V Power Cord Plug (1 pc.), Code Label (1 pc.)

### **OPTIONAL ACCESSORIES** AND SUPPLIES

WV-Q153	Inner Dome Cover	\$58.00	
WV-Q152C	Clear Ceiling Mount Brackets	\$151.00	0
WV-Q1525	Smoke Ceiling Mount Brackets	\$151.00	-
WV-Q151C	Clear Embedded Ceiling Mount Brackets	\$255.00	Fil
WV-Q151S	Smoke Embedded Ceiling Mount Brackets	\$255.00	•
WV-Q150C	Clear Wall Mount Brackets	\$264.00	
WV-Q150S	Smoke Wall Mount Brackets	\$264.00	
WV-Q105	Direct Ceiling Installation	\$129.00	Sun
PODV7CWNS	Outdoor Wall Mount Vandal Housing	\$936.00	5

The Fiber Optic Marketplace LLC® www.fiberoptic.com



# PANASONIC NETWORK DISK RECORDER

### WJ-ND300A

Network Disk Recorder with expandable capacity for digital image data from up to 32 Network Cameras Features

- MPEG-4 and JPEG multi format.
- Up to 32 network cameras can be connected and recorded
- Various Recording Mode
- Various alarm sources
- Panasonic Camera control
- Flexible Playback Controls
- Various display mode
- Eight Quad screens are fully programmable
- Filtered Search

### **OPTIONAL ACCESSORIES** AND SUPPLIES







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MPEG-4 JPEG

### **ORDERING INFORMATION**

WJ-ND300A/1000V	Network Disk Recorder, 1000GB Capacity	\$7,091.00
	(500GB Base Removable Drive)	
WJ-ND300A/2000V	Network Disk Recorder, 2000GB Capacity (500GB Base Removable Drive)	\$7,818.00
Cord for NTSC model, Pov	WJ-ND300A Disk Recorder, CD-ROM, Installation G ver Cord for PaL model, Rack Mount Bracket (2 pc.), s.), Hard Disk Drive Fixing Screw (12 pcs.).	

# PANASONIC NETWORK VIDEO RECORDER

WJ-ND200 NVR WITH TWO, 160GB REMOVABLE HDDS (TOTAL CAPACITY=320GB)

### Network Video Recorder with removable HDD for digital image data from up to 16 Network Cameras

Features

- MPEG-4 and JPEG multi format.
- Up to 16 network cameras can be connected and recorded

**OPTIONAL ACCESSORIES** AND SUPPLIES

Rack Mount Bracket for WJND200

- Various Recording Mode
- Various alarm sources
- Panasonic Camera control
- Flexible Playback Controls
- Various display mode
- Four Quad screens are fully programmable

Vertical Stand

Removable HDD (160 GB)

• Filtered Search

WV-Q200P

WV-Q201

WJ-HDD16



\$136.00

\$111.00

\$500.00



### ORDERING INFORMATION

WJ-ND200/160	Network Video Recorder, 160GB Capacity (160GB Base Removable Hard Drive)	\$3,700.00
WJ-ND200/320	Network Video Recorder, 320GB Capacity (160GB Base Removable Hard Drive)	\$4,646.00
The Dealer we have		an Califa (4

**The Package includes:** WJ-ND200 Disk Recorder, CD-ROM (1 pc), Installation Guide (1 pc.), Warranty (only for NTSC model), Power Cord for NTSC model (1 pc.), Power Cord for PaL model (2 pc.), Key (2 pc.), Brace (for the power cord) (1 pc.).

### Typical Application



### ORDERING INFORMATION

WV-ASM100 Management/monitoring software for recorders \$1,727.00

# WJ-HDC20 USB Cradle For Removable HDD \$300.00

# PANASONIC MANAGEMENT SOFTWARE

- Control up to 100 Panasonic Recorders
- Multiple displays (operation, live, maps)
- MPEG-4 live viewing and alarm message pop-up
- Panasonic PTZ Camera control
- Independent camera/encoder support





# **CONVERSIONS & TERMS**



# **METRIC/ENGLISH** CONVERSIONS

ENGLISH MEASURE	х	FACTOR	=	METRIC MEASURE
in (inches)	х	25.4	=	mm (millimeters)
in (inches)	х	2.54	=	cm (centimeter)
ft (feet)	х	0.305	=	m (meters)
mi (miles)	х	1.608	=	km (kilometers)
lbf (pound force)	х	4.444	=	N (newtons)
lbf-ft (foot pounds)	х	1.355	=	N-m (newton/meter)
lbf/in (pounds/force/inch)	х	1.751	=	N/cm (newtons/ centimeters)
lb (pounds)	х	0.454	=	kg (kilograms)
lb/1000 ft (pounds/thousand feet)	x	1.490	=	kg/km (Ikilograms/kilometer)
°F (degree Fahrenheit)	- 3	2, then x 0.555	=	°C (Celsius)

### **METRIC MEASURE** FACTOR х = mm (millimeters) 0.0394 х cm (centimeter) х 0.394 m (meters) 3.281 х km (kilometers) 0.622 х N (newtons) 0.225 х N-m (newton/meter) 0 738 x 0.571 N/cm (newtons/ centimeters) х kg (kilograms) 2.205 х kg/km (lkilograms/kilometer) x 0.671 °C (Celsius) x 1.8 then + 32

### **ENGLISH MEASURE**

=	in (inches)
=	in (inches)
=	ft (feet)
=	mi (miles)
=	lbf (pound force)
=	lbf-ft (foot pounds)
=	lbf/in (pounds/force/inch)
=	lb (pounds)
-	lb/1000 ft (pounds/thousand feet)
-	°F (degree Fahrenheit)

### **DECIMAL PREFIXES**

G or giga	=	10 <sup>9</sup> (1,000,000,000 or 1 billion)
M or mega	=	10 <sup>6</sup> (1,000,000 or 1 million)
K or Kilo	=	10 <sup>3</sup> (1,000 or 1 thousand)
m or milli	=	10 <sup>-3</sup> (1/1,000 or 1 thousand)
μ or micro	=	10 <sup>-6</sup> (1/1,000,000 or 1 millionth)
n or nano	=	10 <sup>-9</sup> (1/1,000,000,000 or 1 billionth)

# **COLOR CODING** CABLE & JACKETS

Colors of cable jackets for identifying indoor fiber optic cable are not standardized. Typi- cal colors are as follows:		TUBE (OR FIBER) NUMBER	COLOR
		1	Blue
		2	Orange
<ul> <li>Premises Cables</li> <li>Orange or Gray</li> </ul>	Multimode Fiber	3	Green
Yellow	Singlemode Fiber	4	Brown
Outside Plant Cables		5	Slate
These are typically black to prevent UV radiation damage.		6	White
		7	Red
COLORS AND CODES Fiber Color codes are s	pecified by TIA/EIA	8	Black
598–A. In loose tube c	ables, this color code	9	Yellow
will be used for tubes a the tubes and subgrou		10	Violet
the right.		11	Pink (Rose)
		12	Aqua

### **ACRONYMS** AND DEFINITIONS

BER	Bit Error Rate	FTTH	Fiber To The Home	PON	Passive Optical Network
CD	Chromatic Dispersion	Gbps	Gigabits per second (1,000 Mbps)	RX	Receiver
CW	Continuous Wave	HFC	Hybrid Fiber/Coax	SDH	Synchronous Digital Hierarchy
CWDM	Coarse Wavelength Division Multiplexer	IC	Integrated Circuit		(European telecommunication)
dB	Decibel	IEEE	Institute of Electrical and Electronics	SMF	Single Mode Fiber
dBm	Decibel with 1 mWatt reference level	IP	Internet Protocol	SONET	Synchronous Optical Network (US telecommunications)
DSF	Dispersion Shifted Fiber	LAN	Local Area Network	Tbps	Terabits per second
DWDM	Dense Wavelength Division Multiplexing	LED	Light Emitting Diode	TDM	Time Division Multiplexing
EDFA	Erbium–Doped Fiber Amplifier	MAN	Metropolitan Area Network	T/R	Transmit/Receive
EIA/TIA	Electronics Industry Association/	Mbps	Megabits per second (1,000 Kbps)	ТХ	Transmit/Transmitter
	Telecommunications Industry Association	MUX	Multiplexer	UHF	Ultra-High Frequency
EMI	Electromagnetic Interference	NZDF	Nonzero Dispersion Fiber	UV	Ultraviolet
FCC	Federal Communications Commission	OFA	Optical Fiber Amplifier	VoIP	Voice Over IP
FDDI	Fiber-Distribution Data Interface	OTDR	Optical Time-Domain Reflectometer		
FOA	Fiber Optic Amplifier	PD	Photo Diode	WAN	Wide Area Network
FTTC	Fiber To The Curb			WDM	Wavelength Division Multiplexing
FTTD	Fiber To The Desk	PHY	Physical Layer (WLAN)	WPON	WDM PON
	HIDER TO THE DESK	PMD	Polarization-Mode Dispersion		





We currently offer our training via e-learning software and traditional classroom based training. For professionals with limited time and travel ability, some of our entry level courses are offered online while some of our more advanced offerings can be taken using a combination of online preparation and classroom based hands-on workshops.

### **Companies Trained** By FiberOptic.com • Alliance Systems Blue Water Survey CBS News COX Communications Dav-timers Department of Defense • Department of State • Disney Worldwide Service • FRI • FAA IBEW ITT Lutron LUTRON Metropolitan Transit Authority Modern Home Electronics NBA Entertainment • Pennsylvania Department of Transportation • Service Electric Cable Television • Telebarbados • Tennessee Electric Tri-M Group • United States Air Force United States Army U.S. AIR FORCE • Wheeling Hospital



Online/Classroom Combination Courses Combination courses are currently offered

with an online self-paced lecture and a hands-on workshop. This innovative ap-

proach to Fiber Optic training and certification allows students to minimize expense, time and travel while learning at their own pace on their own schedule (by using online e-Learning to complete the lecture portion of the class.) Students may then complete the hands-on portions of the class at any of our scheduled sessions around the world (and can review the material within one year of registering for the course.)

If online training is not ideal for your learning style, a more traditional instructor-lead lecture or questions and answer section is available upon request depending upon location and the size of the class.



### **Online Only Courses**

If a course is being offered online on our e-Learning website no hands-on training is required, although some students find an on-

site lecture helpful. If you wish to take this course from the comfort of your home or office, please our visit our registration page to request login information. This course will be available immediately.

This on-line approach to Fiber Optic training and certification allows students to minimize expense, time and travel while learning at their own pace on their own schedule. If you wish to take it on-site instead, please contact one of our representatives at training@fiberoptic.com. If no nearby locations are offered, please use the online option or contact us about scheduling custom training.



### **Classroom Only Courses**

These courses require a hands-on portion and must be taken at one of our training locations. Currently an online option for these courses is not available. ber(optic.co



# TRAINING COURSES

### **Installer Training Courses**

Installer level courses are our new to intermediate level courses designed for students who have either no experience, limited experience or who wish to brush up on their skills. If a student is new to the telecommunications industry it is recommended that they start with a fundamentals level course from our installer offerings.

	,350
Certified Fiber Installer training is designed for those who layout, install or maint. fiber optic cabling systems. It identifies you as an installer able to demonstrate a practical knowledge of fiber optic theory, codes, standards and practices widely a cepted in the fiber optics industry.	I I

\$1,350

### TR-FTTX FTTx Installer

In this course, we will discuss various network designs, installations, maintenance and troubleshooting. Students will learn the difference between an Active and a Passive Optical Network (PON). The advantages and disadvantages of each system and how they are currently being implemented in the field. Students will learn splicing, testing and installing techniques for an FTTx network.

```
TR-PWSI
               Premise Wiring Systems Installer
                                                                $1.350
```

The Premise Wiring Systems Installer training is designed for those who design, install or maintain copper and fiber optic systems in commercial buildings and outer facilities. It identifies you as an installer who demonstrates a practical knowledge of copper and fiber optic theory, codes, standards and practices widely accepted in commercial building and customer-owned outside plant (campus environment).

TR-IVS	Panasonic i-PRO Installation	\$1,350
11-11-2		31,330

In this course, which focuses on interactive video surveillance systems, students will learn how they or can monitor any location where power and an ethernet network are accessible. Student will learn how to setup motion detection, advanced scheduling, e-mail notifications, administrative privileges.

TR-WIT	Wireless Network Installation & Testing	\$1,500
111-0011	vinciess inclinent installation & resting	J1,500

This course is designed to give students a firm understanding of WLAN security. Hands-on access point and client adaptor labs provide attendees with experience setting up and securing a wireless LAN. Presentation material will explore WLAN design concerns, essential equipment, AP configuration, and site survey techniques.

### Master Training Courses

Master level courses are our most advanced level courses designed for students who have either taken one of our technician level courses or who have commensurate industry experience.

TR-MFS	Master in Splicing	\$1,350

The Master in Splicing program is the first of its kind in the telecommunications field. It is designed to provide an unmatched, real-life experience with solid classroom instruction using various labs designed around specific techniques. The Master in Splicing training is a perfect compliment for experienced installers and technicians. Advanced hands-on design labs along with advanced fusing splicing techniques are featured in this course.

TR-MFT	Master in Testing	\$1,350
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Using various labs designed around specific testing scenarios, the Master in Testing training is a perfect compliment for experienced fiber optic installers and technicians. This course features advanced hands-on testing labs demonstrating advanced testing procedures and techniques.

TR-MFOT	Master Technician	\$3,525
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The Master Fiber Optic Technician training is the most comprehensive certification training available. It is our complete Fiber Optic Training; encompassing all aspects of our master splicing and testing programs into an extensive five-day certification experience that qualifies a Technician as a truly unique "Craftsmen". It is designed to provide an unmatched, real-life experience with solid classroom instruction using various labs designed around splicing, and testing scenarios.

### Visit www.TheFiberSchool.com to sign up for training now!

For an additional \$150 each, students may choose to receive an ETA Certification and/or TheFiberSchool.com certification upon successful completion of the course and exam.

Prices do not include logistics fee for away classes or certification.

### ETA Certification

ETA is widely known for their electronics certification programs, accredited by the International Certification Accreditation Council (ICAC). ETA is considered an industry standard certification.

### **Technician Training Courses**

Technician level courses are our intermediate to advanced level courses designed for students who have either taken one of our introductory courses or who have commensurate industry experience.

### **TR-FOT** Fiber Optic Technician \$2,350

The Fiber Optic Technician course is designed for those who wish to build upon the knowledge gained in the Certified Fiber Installer course, prior to taking the Master Fiber Optic Technician course. This course provides the opportunity to learn and perfect the more advanced field skills that the Fiber Optic Technician needs on the job.

### TR-FCT Fiber Characterization Training \$3,995

This three-day course will provide you with all the knowledge and requirements that are needed to effectively characterize your optical infrastructure. You will learn about all the requirements for engineering and for qualifying the optical fiber links that utilize specific bit rates in regards to both metro and long haul spans.

TR-OSP	Outside Plant Technician	\$2,350

The Fiber Optic Outside Plant Technician is designed for workers with fundamental fiber optic knowledge or installer certification. It focuses specifically on outside plant installations (OSP). OSP includes communications such as building to building or long haul telecommunications (including customer-owned OSP.)

TR-PWST	Premise Wiring Systems Technician	\$2,500

The Premise Wiring Systems Technician training expands a student's knowledge level of copper and fiber optic cabling used in commercial buildings and customerowned outside plant environments (Campus). This training incorporates hands-on labs including multi-vendor copper and fiber terminations, and expanded fiber optic splicing and testing labs. Students will learn skills which are applicable to all the functions required to safely and competently install copper and fiber communications cabling in the premise environment.

Wireless Network Cellular Backhaul **TR-WCB** 

\$1,995

With rising demand for mobile broadband services, network operators are seeing sharp increases in bandwidth requirements. The cellular network infrastructure must evolve to support newer technologies that require more and more bandwidth. Mobile service providers need to gain real-time, insight into their network performance in order to manage existing architectures and ensure a higher quality of service regardless of the underlying technology.

### **Online Only Training Courses**

Online training saves the student time, travel, and expense by allowing them to either complete an entire course from the comfort of their own home or by allowing them to complete a portion of the course prior to the hands-on components.

**TR-FOF** Fiber Optic Fundamentals \$600

\$600

\$1.350

Fiber Optic Fundamentals training is designed for new or experienced workers who desire a fundamental knowledge of fiber optic theory, codes, standards and practices widely accepted in the telecommunications industry today. This course is an excellent starting point for those who install, design, or supervise the installation of fiber optic systems.

The Premise Wiring System Fundamental course is designed for new or experienced personnel who desire a fundamental knowledge of copper and fiber optic theory, codes, standards and practices widely accepted in commercial buildings and customer-owned outside plant facilities. An excellent course for those who install, supervise, design and/or oversee the installation of copper and fiber premise wiring systems in commercial buildings.

TR-FCB	Fiber Characterization Basics	\$1,995

This online course will provide students with an introduction to fiber characterization and allow students to effectively communicate and interpret issues found during testing of optical infrastructure. Students will learn about the theory behind PMD, CD and attenuation profiling, and how to interpret the results obtained during testing.

**TR-WNF** Wireless Network Fundamentals

This course is designed to give students a firm understanding of radio frequency theory, 802.11 standards, WLAN topologies, basic antenna theory and an introduction to WLAN security. Hands-on access point and client adaptor labs provide attendees with experience setting up and securing a wireless LAN. Presentation material will explore WLAN applications in specific markets, WLAN topologies and design concerns, essential equipment, AP configuration, and site survey techniques.

### TheFiberSchool.com Certification

Going above and beyond industry standards, TheFiberSchool.com certifications combine a typical multiple-choice certification exam with a hands-on practical exam demonstrating knowledge in the latest tools and techniques.



Fiber optic.com

# TRAINING COURSES

# TR-CUST Custom Training Course

FiberOptic.com will give you the exact training your company needs, we will train you and your employees exactly as needed to insure your field technicians will perform in a highly professional manner on the job. Most of our OnSite course offerings are typically 4 days in length and feature agendas and hands-on exercises that can easily be adapted to your specific needs. In many cases these needs can be met within the standard 4 day course offerings but clients often require an additional day to address specific needs such as:

### • "Hands-On":

- You need your crafts people prepared to begin working immediately with the practical hands-on experience gained in class on the equipment you use.
  - With your specific connector
  - With your specific fusion splicer
  - With your specific splice closure
  - With your specific OLTS or OTDR.

### • Mixed agendas:

- You construct a fiber optic course that meets your needs then add items from our available certification courses.
  - Cover basic copper cabling common to Premise Wiring Systems
  - Cover basic Audio Visual systems
  - Cover basic CCTV, CATV, FTTx topics
  - Cover specific topics from our Outside Plant course
  - Cover additional OTDR techniques
- Experience: Our skilled instructors and course developers have experience training all kinds of personnel including AT&T, Verizon, US Military, Government agencies, End Users and all categories of contractors enabling FiberOptic.com to easily customize any course.

### • Take Action:

- 1. Select the course and certification desired
  - a. Select a topic or issue you desired to be added
- 2. Contact Fiberoptic.com and request an OnSite Custom quote
  - a. How many students?
  - b. Your location or a location near you?
  - c. Select a desired date that meets your needs and schedule
- 3. Review our proposal and book your training OnSite with Fiberoptic.com







"I enjoyed the personalized class. The one on one time with the instructor and the hand on training were exactly what I needed. The instructor had a vast knowledge and was courteous and helpful."

- W.M., Florida

"The course was great for me, the hands on portions made the difference. The instructor did a great job and really knew the equipment and was able to answer all of my questions."

- R.C., Virginia

### **PRICING** COURSES & CERTIFICATIONS

**TR-CUST** FiberOptic.com Custom Training (Includes course materials)

Custom course prices can vary depending on depth of material and number of days. Call 877-529-9114 for an individualized quote. ptic.com

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# TRAINING COURSES

# **ON-SITE** Training

Take advantage of our most efficient and cost effective way to train you and your valuable employees. FiberOptic.com can bring any of its existing courses and certification exams to your location or to a facility near you.

It is always difficult to take valuable employees out of the field to attend the necessary training courses needed to obtain the certifications required to compete in today's fast paced competitive markets. If your employees are current certification holders, just keeping track of and scheduling their courses to get the required CEC's (Continuing Education Credits) is difficult. In addition ensuring your company field crafts people are scheduled into the right courses to get and keep the individual certifications that your company requires and your clients expect is a challenge.

All this while getting the most out of your training budget.

Let FiberOptic.com help you meet your training goals with our On-Site training because it is:

### **Convenient and Flexible:**

- You select the course, the start time, the end time, the date, the location
- We bring everything to you:
  - Equipment (or use your equipment)
  - Training manuals, lab exercises and a qualified instructor - Certification Exams.
- Your crafts people remain close to the field for unforeseen emergencies

### Cost Effective:

**TRAINING COURSES** 

- Reduce your company's travel expenses
- Increase your productivity and save time
- Save money We'll help you stay within your Training budget

### Take Action:

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- 1. Select the course and certification
- 2. Contact FiberOptic.com and request an OnSite quote
  - a. How many students?
  - b. Your location or a location near you?
  - c. Select a desired date that meets your needs and schedule
- 3. Review our proposal and book your training OnSite with FiberOptic.com

### **PRICING** COURSES & CERTIFICATIONS

Custom course prices can vary depending on depth of material and number of days. Call 877-529-9114 for an individualized quote.



### Custom Training - Rosebel Goldmine, Suriname

The Rosebel gold mine was in need of real world, in-line fiber training. The catch, the mine is in the middle of the Amazon! The unique requirements of maintaining a fiber optic infrastructure was no problem for FiberOptic.com. FiberOptic.com was able to develop hands-on training based on field applications.



### Custom Training - Fallujah, Iraq

Bechtel the world's No. 1 choice for engineering, construction, and project management selected FiberOptic.com as the preferred fiber optic training vendor to create a customized class to train technicians in Fallujah, Iraq.

The Fiber Optic Marketplace LLC<sup>®</sup> www.fiberoptic.com



## Are you protected from Fiber Damage?

### Real-time network status and performance

Built to increase workforce productivity and facilitate the management of large optical networks with fewer technicians, FIBER SENTRY combines remote testing, network monitoring and service provisioning to deliver high-quality network performance.

FIBER SENTRY increases customer satisfaction through improved network availability, simplifies the management of service level agreements (SLAs) and quality of service (QoS), and provides customers with precise information on service status.

The system also enables efficient asset management by assuring high performance levels and the readiness of fiber optic cable for use when required.

FIBER SENTRY continuously monitors the network, alerting operators and managers to faults as they occur. Events are logged, and details regarding faults, such as location and type, are provided to the network management center where the appropriate maintenance teams are automatically alerted.

FIBER SENTRY's Performance Monitoring Services encompass the equipment, resources and highly skilled staff necessary to help you understand, analyze and optimize your LAN, WAN or ATM network fast, with minimal interruption to your everyday operations. FIBER SENTRY engineers focus on providing a broad spectrum of objective analyses ranging from, but not limited to capacity planning, network configuration evaluations, network migration and application deployment assessments, network optimization audits and troubleshooting. Performance Monitoring services are customized to fit your exact needs.

# **Fast Alert Response**

### **Trace Analysis:**

FIBER SENTRY's Trace Analysis Service provides an analysis of all your OTDR traces and quickly provides a clear, concise report detailing all necessary OTDR trace data to properly commission your fiber optic cables. This is especially important when conducting dual wavelength, bi-directional testing of fiber optic cables that results in hundreds or thousands of OTDR trace signatures. Trace analysis can be conducted on any size cable.

### **Spectral Analysis:**

FIBER SENTRY's Spectral Analysis Service provides an analysis of your DWDM network that enables you to optimize the operation, upgrade and performance of your DWDM system, ensuring maximum performance and reliability. FIBER SENTRY takes into consideration such parameters as Optical Signal to Noise Ratio, System Gain Tilt and Total Power in order to optimize the system and avoid potential non-linearities.

### **SONET/SDH** Testing:

SONET/SDH rings are still a dynamic design implemented in today's fiber rings to provide redundancy and diversity. However, the proper test times and required equipment can be quite costly, both in capital and operational expenses. FIBER SENTRY's SONET/SDH Testing Service can help alleviate this situation by providing the equipment, engineers and time required to properly test and exercise your network. Our proactive approach saves you time and money and ensures reliable service.

### At A Glance:

- Fibers are Continuously Monitored, 24x7x365
- Quickly identify and locate fiber faults and degradations.
- ONMS has user defined fault thresholds (typically set at 1 dB) that will identify degradations before they become service affecting outages.
- Reduce SLA fines by quickly locating faults and identify degradations before they become service affecting outages.
- Dispatch to fix, not to find
- Reduce truck rolls
- General desire to conduct Test & Maintenance Centrally and Remotely
- Improve overall Customer Satisfaction/Experience.

### Fiber Characterization:

FIBER SENTRY's Fiber Characterization Service is a series of tests taken on a fiber optic span to determine the integrity of the fiber, installation practices and performance of a desired transmission rate and/or Service. FIBER SENTRY's Fiber Characterization team is staffed to be able to respond to your needs on a timely basis. Analysis of the acquired data and corresponding reports are provided almost immediately after the testing is completed. The FIBER SENTRY team has the expertise to provide real-time, on-site corrective action when problems are identified. For example, if the fiber plant under test has any deficiencies, the FIBER SENTRY team is often able to assist you with immediate resolution by either dealing with the issue directly or providing root cause analysis. The result is an optimized network without having to redeploy crews at a later date, adding to the time needed for project completion. Typical problems resolved on-site by FIBER SENTRY engineers include Reflectance Optimization and Loss Optimization. The number one failure or marginal specification in the field is Optical Return Loss (ORL). Adtell Integrations engineers can work with you to isolate and correct or improve the major contributors to ORL while on-site.

24/7 Monitoring

### **Network Optimization Services:**

The need to deliver new services, on-time and on-budget, while optimizing your existing network has never been greater. Working with your staff, FIBER SENTRY's Network Optimization Services enable you to reduce your time to market, lower equipment costs, reduce network downtime and plan for future upgrades. FIBER SENTRY offers a wide variety of Network Optimization Services including, but not limited to Fiber Characterization, Trace Analysis and Gigabit Ethernet Testing.

### **Setup and Installation Services:**

FIBER SENTRY'S Network Setup and Installation Services can provide the resources to build or expand your network. We help you chose the right design, technology and hardware that suits your business needs.

- ONT and ONU placement for FTTP projects
- Premise wiring for FTTP projects
- Emergency Maintenance agreements
- Network Audit Services (what do we have in the field?...)

# Fiber ptic.com The Fiber Optic Marketplace, LLC®

www.FiberOptic.com Phone: 877-529-9114 Email: sales@fiberoptic.com

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