JOINWIT

Expert on Test & Measurement
Passive Components

Shanghai Joinwit Optoelectronic Co.,Ltd.

Product Catalogue

New in 2010

Handheld Optical Power Meter---------JW3216 Series

JW3216 Handheld Optical Power Meter is Joinwit newly designed fiber optic tester, it aims at fiber network installation, fiber network engineering acceptance and fiber network maintenance. Combined usage with JW3116 handheld optical light source, it offers a quick and accurate testing solution on both SM and MM fibers. Compared with usual power meters, the JW3216 has more great functions/features of automatic wavelength identification and switching and intelligent backlight control. Also the JW3216 features good appearance, good touch feeling and considerate humanity design.

Features

- Wave ID—Automatic wavelength identification and switching (when used with JW3116 handheld light source)
- Frequency ID/Tone detection---Automatic frequency identification
- Intelligent backlight control (light intensity can be adjusted properly according to ambient light, which greatly reduced power consumption)
- Data storage function, up to 1000 test records
- USB communication port for saved testing records download
- Reference power level can be set up and stored
- User self calibration function
- Auto-off function can be activated or deactivated.
- AA alkaline and AC adapter for power supply
- Low battery indication

Specifications

Model	JW3216A	JW3216C
Calibrated（nm）	850, 1300,1310,1490,1550,1625	
Detector type	InGaAs	
Measurement Range（dBm）	-70～+6	-50～+26
Uncertainty (dB)	±0.15（3.5%）	
linearity (dB)	±0.02	
Display resolution(dB)	0.01	
Frequency ID（Hz）	270，330，1K，2K	
Wave ID（nm）	1310，1490，1550，1625	
Date storage capacity	1000	
Communication Port	USB	
Optical Connector type	FC,SC,ST interchangeable	
Alkaline battery	3*AA，1.5V	
Power Supply Adaptor(V)	8.4	
Battery Operating time (h)	200	
Operation Temperature(℃)	-10～+60	
Storage Temperature(℃)	-25～+70	
Outline size（mm）/weight	180*90*45(250g)	

Standard Packages

MODEL	INCLUDES
All JW3216 Models	**JW3216 Optical Power Meter, 3pcs 1.5V batteries, AC Adaptor, User Manual, Cotton swabs and Soft carrying case.**

Optical Power Meter---------JW3211 Series

JW3211 optical power meter

Is a handheld optical power meter, newly released in 2007, which can be used for absolute optical power measurements as well as for relative loss measurements in optic fiber networks. An Ø1.0mm photosensitive area photodiode is used to significantly improve the stability and the reliability. It features ingenious appearance, wide range of power measurement, high accuracy, user self-calibration function and reference power level storage.

Features

- Wide dynamic measurement range (**up to 80dB**)
- Reference power level storage(**Ref** Setting)
- User self-calibration function
- Comfortable LCD display and backlight LCD display supports night operation.
- Power measurements in dBm or mw and insertion loss in dB
- 10 minutes Auto-off function can be activated or deactivated.
- AA alkaline batteries can last more than 140 hours, AC adaptor also available
- Low battery indication

Applications

Telecom Maintenance

CATV Maintenance

Fiber Optic lab testing

Other Fiber Optic Measurements

Specifications

MODEL	**JW3211A**	**JW3211C**
Wavelength(nm)	800~1700nm	
Detector Type	InGaAs	
Detector Size	***Ø 1.0mm***	
Measurement Range (dBm)	**-70~+10**	**-50~+30**
Uncertainty	±5%	
Calibrated Wavelength(nm)	**850,1300,1310,1490,1550,1625**	
Resolution(dB)	0.01	
Optical Connector	FC(interchangeable SC,ST) / as well as 2.5mm universal	
Power Supply	Alkaline Battery(3 AA 1.5V batteries); AC Adaptor(9V)	
Battery Operating Time	140 h with 1.5V Battery(3pcs)	
Operating Temperature(℃)	-10 ~ +60	
Storage Temperature(℃)	-25 ~ +70	
Relative Humidity	0 to 95% (non-condensing)	
Dimension(mm)	190X100X50	
Weight(g)	370	

Standard Packages

MODEL	**INCLUDES**
All JW3211 Models	**JW3211 Optical Power Meter, 3pcs 1.5V batteries, AC Adaptor, User Manual, Cotton swabs and Soft carrying case.**

Optical Power Meter---------JW3208 Series

JW3208 handheld optical power meter

is a compact and an easy-to-use testing instrument for optical fiber networks, which can be used for absolute optical power measurements as well as for relative loss measurements in optical fibers. It features ingenious appearance, wide range of power measurement, high accuracy and user self-calibration function with high performance-to-price ratio.

Features

- User self calibration function
- Comfortable LCD display and **optional** backlight LCD display supports night operation
- Power measurements in dBm or mw and insertion loss in dB
- Low battery consumption, more than 240 hours continual operation time for three 1.5V alkaline batteries
- 10 minutes Auto-off function can be activated or deactivated.

Applications

Maintenance in Telecom
Maintenance CATV
Fiber Optic Lab Testing
Other Fiber Optic Measurements

Specifications

Type	**JW3208A**	**JW3208C**
Wavelength(nm)	800~1700nm	
Detector	InGaAs	
Measurement Range (dBm)	-70~+3	-50~+26
Uncertainty	±5%	
Calibrated Wavelength(nm)	**850,980,1300,1310,1490,1550**	
Resolution(dB)	0.01	
Optical Connector	FC(interchangeable SC,ST) / as well as 2.5mm universal	
Power Supply	Alkaline Battery(3 AA 1.5V batteries)	
Battery Operating Time	240 h with 1.5V Battery(3)	
Operating Temperature(℃)	-10 ~ +60	
Storage Temperature(℃)	-25 ~ +70	
Relative Humidity	0 to 95% (non-condensing)	
Dimension(mm)	175x82x33	
Weight(g)	310	

Standard Packages

MODEL	**INCLUDES**
All JW3208 Models	**JW3208 Optical Power Meter, Protective Rubber Boot, 3pcs 1.5V batteries, User Manual, Cotton swabs and Soft carrying case.**

Optical Power Meter---------JW3218 Series

JW3218 handheld optical power meter

A easy and simple optical power meter. Very economic. Have 6 calibration wavelengths. Nice feature and easy to operate.

Features

- **Low battery indication**
- **More economic**
- **Long battery consumption 260hours**

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	**JW3218A**	**JW3218C**
Wavelength(nm)	800~1700nm	
Calibration Wavelength	850, 1300,1310,1490,1550,1625	
Detector	InGaAs	
Measurement Range (dBm)	-70~+6	-50~+26
Uncertainty(dB)	±0.22	
Linearity(dB)	0.03	
Resolution(dB)	0.01	
Optical Connector	FC(interchangeable SC,ST) / as well as 2.5mm universal	
Power Supply	Alkaline Battery(3 AA A1.5V batteries)	
Battery Operating Time	260 h with 1.5V Battery(3)	
Operating Temperature(℃)	-10 ~ +60	
Storage Temperature(℃)	-25 ~ +70	
Dimension(mm)	164x78x35	
Weight(g)	260	

Standard Packages

MODEL	**INCLUDES**
All JW3218 Models	**JW3218 Optical Power Meter, Protective Rubber Boot, 3pcs 1.5V batteries, User Manual, Cotton swabs and Soft carrying case.**

Optical Power Meter---------JW3205 Series

JW3205 mini handheld optical power meter

is the most lightweight and compact in size testing instrument. It features ease-of-use and economy advantages and can be used for absolute power measurement in optical fibers. JW3205 in combination with the JW3110 mini handheld light source become the most portable and advantageous testing pair.

Features

- The most compact in Size, ideal for field operation
- Power measurements in dBm and mw.
- 10 minutes Auto-off function conserving battery life

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	**JW3205A**	**JW3205B**	**JW3205C**	**JW3205D**
Wavelength(nm)	800~1700nm			
Detector	InGaAs			
Measurement Range (dBm)	-60~+3	-50~+10	-40~+20	-30~+30
Uncertainty	±5%			
Calibrated Wavelength(nm)	850,980,1310,1550nm			
Resolution(dB)	0.01			
Optical Connector	FC(interchangeable SC,ST) / as well as 2.5mm universal			
Power Supply	Alkaline Battery			
Battery Operating Time	360 hours with three 1.5V batteries			
Operating Temperature(℃)	-10 ~ +60			
Storage Temperature(℃)	-25 ~ +70			
Relative Humidity	0 to 95% (non-condensing)			
Dimension(mm)	115X60X20			
Weight(g)	105			

Standard Packages

MODEL	**INCLUDES**
All JW3205 Models	**JW3205 Optical Power Meter, Alkaline battery, Instruction Manul, Cotton swabs and Protective Holster.**

JW3212B PON Optical Power Meter

Is an upgraded version of JW3212B PON power meter, it aims at the FTTx application and maintenance which not only can be used to test and estimate the signals of the voice, data and video at the same time, but also can be used to test the continues wave light power. The calibrated wavelengths for CW light power measurements includes 850, 1300,1310,1490,1550,1625nm. It is an essential and ideal tester for the construction and maintenance of the PON projects.

Features

- Providing simultaneous measurement at all three wavelengths on the fiber (**1490nm, 1550nm,1310nm**)
- Used in Burst mode measurement of **1310nm upstream**
- CW light power measurement is available with wavelengths of **850,1300,1310,1490,1550,1625nm.**
- VFL Function for quick and efficient Visual Inspection
- USB communication port enables data transfer to a PC
- **1000** measurement items can be saved in JW3212B PON power meter or computer for data review.
- JW3212B PON power meter offers up to **10** different threshold sets in total; Three status LEDs represent different optical signal conditions of **Pass, Warn and Fail** respectively.
- **User self-calibration** can be performed and **"Factory Default"** mode can be retrieved in computer through the software.
- PON SC standard connector, easy to test, other type connector port can be required on customer requests.
- Backlight LCD display supports night operation.
- 10 minutes Auto-off function can be activated or deactivated with keypad operation.

Technical Specification

PON module:

Model	JW3212B
1310 upstream measurement	
Pass Zone(nm)	1260～1360
Isolation@1490/1550(dB)	>40
Measurement Range(dBm)	-40～+10
1490 downstream measurement	
Pass Zone(nm)	1470～1505
Isolation @ 1550nm(dB)	>30
Isolation@ 1310nm(dB)	>40
Measurement Range(dBm)	-40～+12
1550 downstream measurement	
Pass Zone(nm)	1535～1570
Isolation at 1490nm(dB)	>40
Isolation at 1310nm(dB)	>40
Measurement Range(dBm)	-40～+25

Measurement Accuracy	
Connatural uncertainty(dB)	±0.5
Linearity(dB)	±0.1
Passing through insertion Loss(dB)	<1.5
General Information	
Detector Type	InGaAs
Optical Connector	FC/SC/ST Interchangeable
Fiber Type	9/125um
Display	LCD:128*64
Measurement Unit	dB/dBm/xW
Resolution (dB)	0.01
Operation Voltage(V)	DC 3.3～5.5
Power Supply	3 AA1.5V battery
Continuously Operation time (h)	PON Power Meter Mode：90h Normal Optical Power Meter Mode：100h VFL Mode：50h
Operation Temperature(℃)	-10～60
Storage temperature(℃)	-25～70
Weight(kg)	500g

Note: The operation time of the battery are all for the instrument that do not turn on backlight, if the backlight turn on the operation time will be shorted.

Normal Optical Power Meter Module：

Measurement Accuracy	
Connatural uncertainty(dB)	±0.25
Linearity(dB)	±0.1
Measurement Range(dBm)	-70～+6 or -50~+26
General Information	
Measurement Unit	dB/dBm
Resolution (dB)	0.01
Calibration Wavelength(nm)	850,1300,1310,1490,1550,1625
Detector Type	InGaAs
Optical Connector	FC/SC/ST Interchangeable/2.5 universal adapter
Fiber Type	9/125um

VFL Module：

Output Power(mW)	1mw
Wavelength(nm)	650
Optical Connector	FC/2.5 universal connector

Handheld Adjustable Light Source---------JW3116 Series

JW3116 Handheld Adjustable Light Source is Joinwit newly designed fiber optic tester, it aims at fiber network installation, fiber network engineering acceptance and fiber network maintenance. Combined usage with JW3216 handheld optical power meter, it offers a quick and accurate testing solution on both SM and MM fibers. The JW3116 provides 1 to 4 wavelengths and output power can be adjustable on customer requests. Also the JW3116 features good appearance, good touch feeling and considerate humanity design.

Features

- Wave ID information can be transmitted when used with JW3216 Optical Power Meter.
- Tone generation, 270HZ,330HZ,1KHZ,2KHZ
- Output power can be adjustable
- Output power value is shown on LCD display
- Intelligent backlight control (light intensity can be adjusted properly according to ambient light, which greatly reduced power consumption)
- AA alkaline and AC adapter for power supply
- Low battery indication

Specifications

Model	JW3116
Operating wavelength（nm）	1310/1550;1310/1490/1550/1625（others specify on requests）
Applicable fiber	SM，MM
Laser type	FP-LD(others specify on requests)
Output Power（dBm）	-7（can be adjustable）
Adjustable step size（dBm）	＜0.5
Stability(dB，30min，20℃)	0.15
Modulation（Hz）	CW， 270，330，1K，2K
Fiber Port	FC/PC
Alkaline Battery	3*AA，1.5V
Power Supply Adaptor(V)	8.4
Battery Operating time(h)	45
Operation Temperature(℃)	-10～+60
Storage Temperature(℃)	-25～+70
Outline size（mm）/weight	180*90*45(250g)

Standard Package

MODEL	INCLUDES
All JW3116 Models	**JW3116 Optical Light Source, 3pcs 1.5V batteries, AC Adaptor, User Manual, Cotton swabs and Soft carrying case.**

Optical Light Source---------JW3111 Series

JW3111 optical light source

Is a handheld optical light source, newly released in 2007. It can provide **1 to 6** wavelengths output to satisfy specific requirements including the 650nm visible light source and the 1310/1550nm wavelengths for single mode fiber or the 850/1300nm wavelengths for multimode fiber, as well as other wavelengths according to customer's needs. Together with the JW3211 optical power meter, it is a perfect solution for fiber optic network applications.

Features

- Provides 1~6 wavelengths output which can be optional according to customers' needs
- CW, 2Hz modulation output at 650nm, and CW, 270Hz,1KHz,2KHz modulation output at other wavelengths.
- High stability of the output power
- Stable output wavelength
- Backlight LCD display supports night operation
- Low battery power indication

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	JW3111
Wavelengths(nm)	Provides 1~6 Wavelengths according to needs.
Emitter Type	FP-LD,LED
Typical Ouput Power(dBm)	0@650nm / -7 @1310nm,1550nm, -20dBm for LED
Spectral Width(nm)	≤10
Output Stability	±0.05dB/15mins; ±0.1dB/ 8hours
Modulation Frequencies	CW.2Hz@650nm / CW,270Hz,1KHz,2KHz@1310nm,1550nm
Optical Connector	FC/PC(Other type adapters can be required)
Power Supply	Alkaline Battery(3 AA 1.5V batteries); AC Adaptor(9V)
Battery Operating Time(hour)	45
Operating Temperature(℃)	-10~+60
Storage Temperature(℃)	-25~+70
Dimension(mm)	190X100X50
Weight(g)	370
Joinwit Recommendation	
JW3111 Handheld Light Source is designed for optimal use with **JW3211** Optical Power Meter for measuring optical loss on both single mode and multimode fiber cable.	

Standard Package

MODEL	INCLUDES
All JW3111 Models	**JW3111 Optical Light Source, 3pcs 1.5V batteries, AC Adaptor, User Manual, Cotton swabs and Soft carrying case.**

Optical Light Source---------JW3109 Series

JW3109 optical light source can provide 1 to 4 output wavelengths to meet specific requirements, including the 650nm red source and the 1310/1550nm wavelengths for single mode fiber or the 850/1300nm wavelengths for multimode fiber, as well as other wavelengths according to customer needs. Together with the JW3208 optical power meter, it is a perfect solution for the fiber optic network characterization.

Features

- Provides 1~4 output wavelengths which can be optional according to customer's needs
- CW, 2Hz modulation output at 650nm, and CW, 270Hz,1KHz,2KHz modulation output at other wavelengths.
- High stability of the output power
- Stable output wavelength
- Backlight LCD display supports night operation
- Compact size and decent appearance
- Large LCD, easy operation
- Alternative 10 minutes Auto-off function conserving battery life

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	**JW3109**			
Wavelengths(nm)	650	1310/1550	850/1300	850/1300/1310/1550
Emitter Type	FP-LD,LED or others please specify			
Typical Output Power (dBm)	0	-7dBm for LD, -20dBm for LED		
Spectral Width(nm)	1. ≤10			
Output Stability	±0.05dB/15mins; ±0.1dB/ 8hours			
Modulation Frequencies	CW,2Hz	CW,270Hz,1KHz,2KHz		
Optical Connector	FC/ universal adaptor	FC/PC		
Power Supply	Alkaline Battery(3 AA 1.5V batteries)			
Battery Operating Time(hour)	45			
Operating Temperature(℃)	-10~+60			
Storage Temperature(℃)	-25~+70			
Dimension(mm)	175x82x33			
Weight (g)	295			
Joinwit Recommendation				
JW3109 Handheld Light Source is designed for optimal use with **JW3208** Optical Power Meter for measuring optical loss on both single mode and multimode fiber cable.				

Standard Packages

MODEL	**INCLUDES**
All JW3109 Models	**JW3109 Optical Light Source, Protective Rubber Boot, 3pcs 1.5V batteries,User Manual, Cotton swabs and Soft carrying case.**

Optical Light Source---------JW3118 Series

JW3118 a very economic handheld stable light source, can provide dual wavelength. Used with the same series JW3218 is a very perfect tools for the fiber optic network maintance

Features

- Dual wavelength
- 4 modulations
- Single key can shift the wavelength

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	**JW3118**	
Wavelengths(nm)	1310/1550	850/1300
Emitter Type	FP-LD,	
Typical Output Power (dBm)	-6~-7	
Output Stability	±0.05dB/30mins	
Modulation Frequencies	CW,270Hz,330，1KHz,2KHz	
Optical Connector	FC/ universal adaptor	
Power Supply	Alkaline Battery(3 AAA 1.5V batteries)	
Battery Operating Time(hour)	40	
Operating Temperature(℃)	-10~+60	
Storage Temperature(℃)	-25~+70	
Dimension(mm)	164x78x25	
Weight (g)	230	
Joinwit Recommendation		
JW3118 Handheld Light Source is designed for optimal use with **JW3218** Optical Power Meter for measuring optical loss on both single mode and multimode fiber cable.		

Standard Packages

MODEL	**INCLUDES**
All JW3118 Models	**JW31118 Optical Light Source, Protective Rubber Boot, 3pcs 1.5V batteries,User Manual, Cotton swabs and Soft carrying case.**

JW3110 Mini optical light source

is the most rugged small size instrument in the industry. It integrates super small size and strong function in one unit. With 3 pieces of 1.5V alkaline batteries, it can work continuously for more than 40 hours. The total weight is only 110g. Together with the JW3205 Mini optical power meter, it provides an excellent solution for fiber optic network and for field work.

Features

- High stability of the output power
- Economic type, easy to use
- Matched with the JW3205 mini power meter,
  it constitutes the smallest optical loss test kit, perfect for field testing

Applications

Maintenance in Telecom Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	**JW3110**
Wavelengths(nm)	1310 or 1550
Emitter Type	FP-LD
Ouput Power(dBm)	-7~-6
Spectral Width(nm)	≤10
Output Stability	±0.05dB/15mins; ±0.1dB/ 8hours
Optical Connector	FC/PC
Power Supply	3pcs 1.5V alkaline batteries
Battery operating time(hour)	40
Operating Temperature(℃)	-10~+60
Storage Temperature(℃)	-25~+70
Dimension(mm)	115X60X20
Weight (g)	110
Joinwit Recommendation	
JW3110 Handheld Light Source is designed for mini portfolio with JW3205 Optical Power Meter for measuring optical loss on both single mode and multi mode fiber cable.	

Standard Packages

MODEL	**INCLUDES**
All JW3110 Models	**JW3110 Optical Light Source, Alkaline battery, User Manual, Cotton swabs and Protective Holster.**

Pen-type Visual Fault Locator (VFL)---------JW3105P

The JW3105 Pentype VFL is specially designed for field personnel who need an efficient and economical tool for fiber tracing, fiber routing and continuity checking in optical network. It includes:

- Finding the breakpoint, poor connections, bending or cracking in fiber optic cables.
- Finding the faults of OTDR dead zone
- End-to-end visual fiber identification

Features

2.5mm universal connector, for 1.25mm connectors,

- FC (Male)-LC (Female) convertor can be provided on requests.
- Operates either in CW or Pulsed
- Constant output power
- Lower Battery warning
- Long battery life (up to 60 hours)
- Crash-proof and dust-proof design for laser head
- Laser case ground design prevents ESD damage
- Burning testing to ensure the reliability.
- Portable and rugged, easy to use
- Guarantee to CE standards include EMC, EMI, ROHS

Specifications

Type	**JW3105 Pen-type Visual Fault Finder**
Central Wavelength	650nm±10nm (635nm can be required on request)
Emitter Type	FP-LD
Output Power	Optional choice for **1mw, 3mw, 5mw,10mw** on actual needs
Optical Connector	2.5mm universal connector For 1.25mm connectors, FC (Male)-LC (Female) convertor can be optional on customer requests
Operating Model	Both CW and Pulse available
Pulse Frequency	2~3Hz
Power Supply	2 AA alkaline batteries
Battery Operating Time	650nm@1mw ≥65hour 650nm@3mw ≥50hour 650nm@10mw≥15hour Test with Panasonic LR6 AA ALKALINE battery
Operating Temperature	-10~+45 (℃)
Storage Temperature	-40~+70 (℃)
Dimension (mm)	¢15X180
Weight	120g(Without battery)

Remark: Colors can be customized on request when meets certain qty!

Standard Packages

MODEL	**INCLUDES**
JW3105 P	**Main Unit (Original color), 2pcs Alkaline battery, User Manual, Cotton swabs and Soft Carrying case.**

Visual Fault Locator(VFL)---------JW3105

JW3105 Visual Fault Locator

is used for the measurement in single-mode or multi-mode fibers. It features a rugged design, an universal connector and an accurate measurement. The JW3105 visual fault locator easily identifies the cutting, micro-bending of the optic fiber, passes through the jacket fiber and performs an end-to-end fiber identification. Its measurement range is up to 5km. It is an ideal tool for the examination of all kinds of patch cords and ribbon or bunched pigtails in the installation and maintenance of fiber optic networks.

Features

- Detects breaks, micro-bends even through jacketed fibers
- End-to-end visual fiber identification
- Locates faults up to 5km along the fiber.
- Mechanical fusion splice optimization
- Compact size and light weight, suitable for field testing

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	JW3105
Wavelengths(nm)	650±10nm
Fiber Model	SM,MM
Output Power	Optional choice for **1mw, 3mw, 5mw,10mw** on actual needs
Spectral Width(nm)	≤5
Emission	CW, 2Hz can be optional
Optical Connector	FC/ Universal 2.5mm adaptor
Power Supply	2pcs AA alkaline batteries
Battery Operating Time	30 hours
Operating Temperature(℃)	-10~+60
Storage Temperature(℃)	-25~+70
Dimension(mm)	100X50X25
Weight (g)	56g(Without battery)

Remark: Pen-type VFL can be provided!

Standard Packages

MODEL	INCLUDES
JW3105	**JW3105 Visual Fault Locator, Alkaline battery, User Manual, Cotton swabs and Protective Holster.**

Visual Fault Locator(VFL)---------JW3105N

JW3105N Visual Fault Locator

A very economic visual fault locator adaptors the 650nm wavlength laser, it is an ideal tools for the fiber checking

.

Features

- Smaller size and economic
- Easy to operate
- CE passed

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	JW3105N
Wavelengths(nm)	650±10nm
Fiber Model	SM,MM
Output Power	>0
Spectral Width(nm)	≤5
Emission	CW, 2Hz
Optical Connector	FC/ Universal 2.5mm adaptor
Power Supply	2pcs AA alkaline batteries
Battery Operating Time	40 hours
Operating Temperature(℃)	-10~+60
Storage Temperature(℃)	-25~+70
Dimension(mm)	100X30X18
Weight (g)	37g(Without battery)

Remark: Pen-type VFL can be provided!

Standard Packages

MODEL	INCLUDES
JW3105N	**JW3105N Visual Fault Locator, Alkaline battery, User Manual, Cotton swabs and Protective Holster.**

Optical Multi-meter---------JW3207 Series

JW3207 handheld optical multi meter

integrates the functions of an intelligent optical power meter module and of a highly stable light source module in one unit which can perform closed-loop tests by incorporating both modules. Individual regimes of operation can also be manually chosen using menu operation to switch functions. A perfect combination to make your optical fiber tests a lot more convenient.

Features

- Includes all the outstanding functions of handheld intelligent power meter(JW3206)
- Includes all the outstanding functions of handheld stable light source(JW3108)
- Switching of the power meter function and that of the light source by menu operation
- Different light sources and power meters can be built into JW3207

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	JW3207A	JW3207C
Optical Power Meter Module		
Detector Type	IngaAs	
Measurement Range(dBm)	-70~+6	-50~+26
Uncertainty	5%	
Calibrated wavelengths(nm)	**850,980,1300,1310,1490,1550**	
Rosolution(dB)	0.01	
Data Storage Capacity	240 data items	
Identification Frequency Rang	10Hz~60KHz	
Optical Connector	FC(interchangeable SC,ST)	
Optical Light Source Module		
Emitter Type	FP-LD	
Wavelengths	1310/1550(other wavelengths can be optional)	
Ouput Power(dBm)	-7	
Spectral Width	≤10nm	
Output Stability	±0.05dB/15mins; ±0.1dB/ 8hours	
Modulation Frequencies	270Hz, 1KHz, 2KHz	
Optical Connector	FC/ PC	
General Specifications of Multi Meter		
Power Supply	Rechargeable Battery + Power Supply Adaptor	
Communication Interface	RS232	
Battery Operating Time	≥6 hours(Both Power Meter and Light Source are working) ≥28hours(Only Power Meter is working)	
Auto-off time	10mins	
Operating Temperature(℃)	-10~+60	
Storage Temperature(℃)	-25~+70	
Dimension(mm)	210x115x55	
Weight (g)	540	

Standard Packages

MODEL	INCLUDES
JW3207 Models	JW3207 Multimeter Protective Rubber Rechargeable battery Power Supply Adaptor Software Disk Data upload Cable RS232 User Manual Cotton swabs Rigid hard carrying case can be optional

integrates both an optical power meter module and an optical light source module and can perform closed-loop tests by using both modules,and can also work individually. It is specifically designed for technical support personnel to test a variety of instruments with a single meter and thus satisfy the user by providing a choice of greater convenience and more advantages.

Features

- Includes all the outstanding functions of the handheld power meter (JW3203R)
- Includes all the outstanding functions of the handheld stable light source(JW3104)
- Perfect combination to make your fiber measurements more convenient.
- Different light sources and power meters can be built into JW3204

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	JW3204A	JW3204B	JW3204C	JW3204D
Optical Power Meter Module				
Detector Type	IngaAs			
Measurement Range(dBm)	-70~+3	-60~+10	-30~+20	-20~+30
Uncertainty	5%			
Calibrated wavelengths(nm)	**850,980,1310,1550nm**			
Rosolution(dB)	0.01			
Optical Connector	FC(interchangeable SC,ST)			
Optical Light Source Module				
Emitter Type	FP-LD			
Wavelengths	1310/1550(other wavelengths can be optional)			
Ouput Power(dBm)	-7			
Spectral Width	≤10nm			
Output Stability	±0.05dB/15mins; ±0.1dB/ 8hours			
Optical Connector	FC/ PC			
General Specifications of Multi Meter				
Power Supply	Rechargeable Battery + Power Supply Adaptor			
Battery Operating Time	≥4 hours(Both Power Meter and Ligh Source are working) ≥28hours(Only Power Meter is working)			
Auto-off time	10mins			
Operating Temperature(℃)	-10~+60			
Storage Temperature(℃)	-25~+70			
Dimension(mm)	180X85X30			
Weight (g)	340			

Standard Packages

MODEL	INCLUDES
All JW3204 Models	**JW3204 Optical Multimeter, Protective Rubber Boot, Rechargeable battery, Power Supply Adaptor, User Manual and Cotton swabs.**

Optical Fiber Ranger ---------JW3304N

JW3304N Optical Fiber Ranger is the most portable test instrument in the industry. It adopts the OTDR technical principles and integrates the powerful analysis software, which enables the JW3304N fiber ranger detect fiber faults location more accurate and easy.

Main Features

- Portable, rugged, lightweight; Easy to use.
- More accurate testing results and better repeatability.
- Up to **8** fiber faults can be detected in each measurement.
- Automatic Pulse Width Control design to ensure a convenient operation.
- Easy to identify the faults location.
- Built-in visual fault locator (VFL), conveniently to find the faults in dead zone.
- Dust, water and shock proof, designed for field use
- Long battery life, up to 5000 measurements operation.

Applications

- Testing the distance of the fiber and identify the faults location in the fiber link.
- Locates reflective and non-reflective breaks in the fiber network.
- Inspection of fiber repair and maintenance.

JW3304N Fiber Ranger is ideal to be used in FTTx network installation and maintenance.

Specifications

Model		JW3304N
Operating Wavelength		1550nm (1310nm Optional)
Fiber Type		9/125um SM Fiber
Optical Connector Type		FC/PC
Detector Type		InGaAs
Peak Power of laser		≥60mW
Max. Displaying Distance	Reflection Event	60km (≥1dB)
	Non-reflection Event	20km (≥2.5dB)
Measurement Unit		m
Reflection Event Dead Zone		15m
Distance Accuracy (Reflection Event)		± (2m+2*10 (-4) *Distance)
Wavelength of VFL Option		650nm
Output Power of VFL Option		〉=1mW
Power Supply		Alkaline Battery (3pcs AA 4.5V Batteries)
Battery Operating Time		≥5000 measurements
Working Temperature		-5~40℃
Storage Temperature		-10~60℃
Humidity		0~85% (Non-condensation)
Dimensions		190*100*50mm
Weight (g)		450

Standard Packages

MODEL	INCLUDES
JW3304N	**JW3304N Fiber Ranager, 3pcs 1.5V batteries, User Manual, Cotton swabs and Soft carrying case.**

Optical Fiber Identifier---------JW3306B Series

JW3306B Optical Fiber Identifier can quickly identify the direction of transmitted fiber and display the relative core power without any damages to the bended fiber. When the traffic is present,the intermittently audible tone is activated.

The JW3306B optical fiber identifier also recogize the modnulation like,270Hz,1kHz and 2kHz .When they are used to detect the frequency, the continuously audible tone is activated.There are four adapter heads available: Ø0.25, Ø0.9, Ø2.0 and Ø3.0. The JW3306B optical fiber identifier is powered by a 9V alkaline battery .

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
- Easy-to-replace adaptors
- Durable metal housing and quality construction
- Lower power indication

Specifications

Type	JW3306B	
Identified Wavelength Range	800-1700 nm	
Identified Signal Type	CW, 270Hz±5%，1kHz±5%，2kHz±5%	
Detector Type	Ø1mm InGaAs 2pcs	
Adapter Type	Ø0.25 (Applicable for Bare Fiber)，Ø0.9 (Applicable for Ø0.9 Cable) Ø2.0 (Applicable for Ø2.0 Cable), Ø3.0 (Applicable for Ø3.0 Cable)	
Signal Direction	Left & Right LED	
Singe Direction Test Range (dBm, CW/0.9mm bare fiber)	-46~10(1310nm)	
	-50~10(1550nm)	
Signal Power Test Range (dBm, CW/0.9mm bare fiber)	-50~+10	
Signal Frequency Display (Hz)	270, 1k, 2k	
Frequency Test Range (dBm, Average Value)	Ø0.9, Ø2.0, Ø3.0	-30~0 (270Hz,1KHz)
		-25~0 (2KHz)
	Ø0.25	-25~0 (1KHz,2KHz)
		-20~0 (2KHz)
Insertion Loss(dB, Typical Value)	0.8 (1310nm)	
	2.5 (1550nm)	
Alkaline Battery(V)	9	
Operating Temperature(℃)	-10—+60	
Storage Temperature(℃)	-25—+70	
Dimension (mm)	196X30.5X27	
Weight (g)	200	

Standard Packages

MODEL	INCLUDES
JW3306B	JW3306B Optical Fiber Identifier, 4pcs adapter heads, Sunshade, Alkaline battery, User Manual, Cotton Stick and Soft Carrying case.

Optical Talk Sets----------JW4103N

JW4103NOptical Talk Set

is an intelligent and efficient instrument that combines in one set the functions of both a digital optical phone and a stabilized light source. It is widely used in operations of installation, optical testing, maintenance and fiber attenuation value testing in data network, CATV and Telecommunication network. The JW4103 Talk Set can carry out full-duplex communication with high quality connection and not be affected by distance.

Features

Full-duplex digital communication with high quality conversation connection and low background noise

-
- Together with Optical Clip-on Coupler, enables on line communications available
- Combining functions of both a digital optical phone call and a stabilized light source.
- Large LCD display with backlight
- Low battery power indication

Applications

Maintenance in Telecom

Maintenance CATV

Fiber Optic Lab Testing

Other Fiber Optic Measurements

Specifications

Type	**JW4103N**
Wavelength(nm)	1310/1550
Emitter Type	FP-LD
Transmission Distance	≥80km
Dynamic Range	40dB
Output Power	-5~-7dBm(9/125um), CW or 2KHz, 1KHz, 270Hz Modulation
Output Stability	±0.1dB/±0.25dB(1/8hrs) CW
Power Supply	Rechargeable Battery + Power Supply Adaptor
Battery Operating Time	5 hours
Optical Connector	FC/PC
Operating Temperature(℃)	-10 ~ +60
Storage Temperature(℃)	-25 ~ +70
Dimension(mm)	215X115X55
Weight(g)	520

Remark: Joinwit also provides Fiber Optic Clip-on Coupler device according to customers needs.

Standard Packages

MODEL	**INCLUDES**
JW4103N	**JW4103N Optical Talk Set (pair), Protective Rubber Boot, Headset, Rechargeable battery, Power Supply Adaptor, User Manual, Cotton swabs and soft carrying case.**

Optical Variable Attenuator ---------JW3303

JW3303 handhold optical variable attenuator is used for continuously variable optical signal attenuation. As the attenuator is used in the laser system for the on-line testing, therefore, JW3303 can be used in the digital system of communication devices (such as: PHD, SDH) and also in the system of adopting analog modulation (CATV)

Main Features

- stepwise attenuating by circumgyrated dial: **attenuating step 0.05dB**
- Provide with the function of displaying dB and dBm attenuating value
- 10 minutes Auto-off function can be activate and deactivate with keypad operation.
- After off the instruments, the system will have the memorizing of the attenuating value and the attenuating step, in order to restore the system back to the previous shut down state when open the instruments next time
- Portable, rugged, lightweight; Easy to use.

Applications

- Telecom Maintenance
- CATV Maintenance
- Comprehensive cable construction system
- Optical instruments research and development
- Optical communication education and lab testing
- Other optical project

Specifications

Type	**JW3303**
Attenuating wavelength Range	**1260~1650nm**
Fiber Model	9/125um SM
Optical Connector	FC/PC
Calibrated wavelengths	**1310/1490/1550/1625nm**
Measurement Range	**2~60dB**
Resolution	0.05dB
Minimize Insertion Loss	**＜2.0dB**
Linearity	±0.5dB
Repeating	±0.2dB
Attenuating Accuracy	±0.8dB
Return Loss at Input/ Output	**＞35dB（typical value40dB）**
Max input	＋20dBm
Displaying type	lattice 128*64 black and white, white back ground light
Rechargeable batteries	8.4V
Power supply adaptor	8.4V
Operation temperature	0~40℃
Operation Time	40 hours
Storage temperature	-10~60℃
humidity	0~85%（non- condensation）
Dimensions	180X90X36.5
Weight	427g

Standard Packages

MODEL	**INCLUDES**
JW3303	**JW3303 Main Body, Protective Rubber Boot, Rechargeable battery, Power Supply Adaptor, Instruction Manual and Cotton Swabs and Rigid hard carrying case.**

JWD1000 Min Series Optical Power Meter

JWD1000 Min Series Power Meter equips with wide angle detector, replaceable attenuator and various fiber adapters, which can be connected directly with the computer with USB or RS232 communication port. It is an intelligent but economical test device and **very suitable for optical power measurements from Passive Components Producers, Research Lab and University Lab.**

Various optical fiber adapters and attenuation chips can be used upon actual requirements.

Product Features

- **Wide angle Si、Ge detectors can be alternative**

  The JWD 1000 min series OPM can support the detector size up to 5mm for Ge detector and 10mm for Si detector.

  The measurement wavelength range is from 400~1100nm for Si detector and 800~1600 for Ge detector, with dynamic ranger of 60dB.

- **Compensation of the detector temperature**

  JWD1000min series OPM can calibrate the value of the testing result trough the detector temperature compensation; this will lessen the reading value offset caused by the external temperature change

- **Various Optical Fiber Adaptors can be required**

  JWD1000min series OPM provide the FC, SC, ST, LC and other kind of changeable optical fiber adaptors, can adapt for all kinds of the need of the optical fiber connection.

- **User-self Calibration Function**

  Any wavelength can be calibrated by user independently (up to 9 wavelengths calibration can be supported). The device do not need to send back to the original factory for recalibration, it can be deal with in the local Measurement Bureau for the annually calibration.

- **Attenuation Chips can be changeable**

  JWD1000min series OPM support 10,100 and 1000 absorbability attenuation chips, for the convenience of users' variable attenuation requirements.

- **WIN32 API Support**

  JWD1000 min series OPM provide various API ports based on WIN32, so that the user can develop its own software according to its actual requirements, which includes:

  1） Data Reading

  Read the current wavelength power value (also can customize the relative log, absolute log, and linearity), also can read the detector temperature

  2) Calibration

  Calibrate the current wavelength, zero calibration, and adjust the compensation temperature

  3) Setting

  Setting the wavelength, Setting the measurements mode (manual, Auto), Setting the ranger, Setting the filter speed, Setting Units, Setting the reference value

Product Specifications

Model	**JWD1000 mini Series OPM**
Wavelength (nm)	**400～1100(Si); 800~1600(Ge)**
Pre-determined calibrated wavelength (nm)	850/980/1300/1310/1490/1550/1625（Ge Detector）; 660/780/820/850（Si Detector）
Self-calibration wavelength qty	9 Max
Uncertainty（Full rang）	5%
Dynamic Rang（dB）	70
Unit	Linear：nw、uw、mw、w Log：dB、dBm
Displaying speed（Data average）	SLOW：960ms（16 times on average） MEDIUM：480ms（8 times on average） FAST：60ms（uneven）
Resolution	0.001
Communication Port	Standard RS232 Port or USB port
Cable length	1.5m（Standard）or Customized
Operation temperature (℃)	＋10~＋40
Storage temperature(℃)	- 20～＋60
AC adaptor	9V DC/RS232 or supply by USB cable
Warm-up time	20Min.
Weight(kg)	<200g
Dimensions(mm)	Ø45×40

Ordering Information

Model	**JWD1000-A-B-C-D-E mini Power Meter**
Detector Type（**A**）	1) 3mm Ge -60~0dBm 2) 5mm Ge -60~0dBm 3) 5mm Si -60~0dBm 4) 10mm Si -60~0dBm
Communication port （**B**）	1) RS232 2) USB
Cable Length（**C**）	1) 2m（Standard） 2) 5m (Optional)
Attenuator type（**D**）	1) 10 time absorbability attenuation chips **(+10~-60dBm)** 2) 100 time absorbability attenuation chips **(+20~-50dBm)** 3) 1000 time absorbability attenuation chips **(+30~-40dBm)**
Adaptor Type（**E**）	1) FC 2) SC 3) ST 4) LC 5) Bare Fiber

Remark：1、Each attenuation chip is unique relative to the detector.

2、Extra calibration service can be optional on customer requirements

Standard Packages

Model	include
JWD1000 mini series Optical Power Meter	Main Unit, RS232 communication cable, FC Adaptor, A piece of Attenuator, AC adaptor, Software CD, Cotton swabs, User manual.

JW3201N Bench-top optical Power Meter

JW3201N Bench-top Optical Power Meter is a high precision and wide measurement range test instrument which designed specially aim at passive components factories, R&D institutions and universities. With features of accurate measurements, durable use and easy operation, JW3201 N Bench-top Optical Power Meter becomes a perfect test equipment in fiber optic works which can instead the advanced imported products with its high cost-performance ratio.

JW3201N0 Built-in Detector

JW3201N External Detectors Introduction (Refer to right pictures)

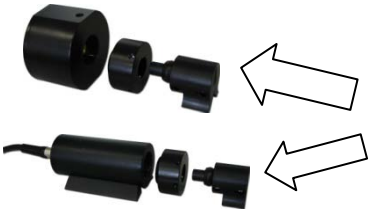
- **JW3201N1 Horizontal detector:**
  With **2.0mm** Photosensitive area, **0dB InGaAs**
- **JW3201N2 Vertical detector:**
  With **3.0*4.0mm** Photosensitive area, **0dB TO detector**
- The only tip for bare fiber can be optional
- Different external detector can be used on customer requirements

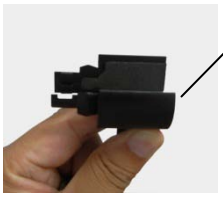
JW3201N1 Horizontal detector

JW3201N2 Vertical detector

The only Tip for bare fiber

JW-430 bare fiber tip have a V sharp slot, the bare fiber can pull in and out and orientation repeatedly. And it can protect the fiber against the pressure from outside, to avoid fiber tortuosity that will cause the polarization dependent loss. JW-430 can fully encircle the bare fiber, to against the surrounding light come into the fiber, to make the test result more preciously.





N1 type detector or N2 type detector can be matched with JW-430 bare fiber tip

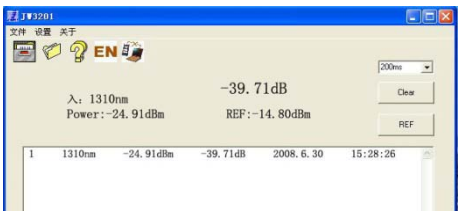
Product Features

- External detector makes the testing operation more convenient.
- **850~1700nm** wide wavelength range, wavelength can be **adjustable** in 1nm increments.
- High accuracy, the uncertainty is±**3%**
- Display resolution 0.01dB
- Wide Power Measurement range (**+5～-75dBm**)
- User self-calibration function
- **"Ref" setting** enables the user to retrieve and display the measurement that has been stored as a reference. Link loss test result obtained automatically without any manual calculation.
- Adopt the new Data Acquisition technology to ensure optimum signal-noise ratio.
- Use the bare fiber tip to realize power measurement with bare fiber
- Enables data transfer to a PC via RS232 communication port as well as data storage automatically.

JW3201N Bench-top optical Power Meter

Through communication with RS232 port and PC, can realize the optical power monitoring without people, as well as displaying the data on the instrument and the PC at the same time

PC Displaying Interface



Instruments Displaying Interface

Product Specifications

Type	JW3201N
Wavelength Range(nm)	**850～1700 (in 1nm increments)**
Calibrated Wavelength(nm)	850，980，1300，1310，1480，1490，1550，1625
Photo Detector	In GaAs
Measurement Range (dBm)	**+5～-75dBm** (other measurement range can be customized)
Intrinsic Uncertainty	±3%
Communication interface	RS232
Resolution(dB)	0.01dB
Optical Connector	FC
Power Supply	AC90～260V，50Hz
Operating Temperature (℃)	-10~+40
Storage Temperature (℃)	-25~+70
Dimension(mm)	260*190*120
Weight (kg)	2.75

Ordering Information

Model	Description
JW3201N－X	**JW3201N0: Built-in Detector** **JW3201N1: Horizontal Detector** **JW3201N2: Vertical Detector**
JW-430	JW-430 Bare Fiber Tip

Standard Packages

Model	Standard Package List
JW3201N0/N1/N2 Bench-top Power Meter	Main Unit, External Detectors for N1 and N2, RS232 data transfer cable, Power supply Adaptor, Software CD, Cotton swabs, User Manual

ASE Broadband Light Source--------JW3107

JW3107 ASE (Amplified Spontaneous Emission) broadband light source

is designed specially for manufacturing of passive optical components and for testing in lab research. The main body of the light source is composed of high-powered pump laser and erbium doped fiber. Inimitable ATC and APC circuits are used to ensure the stability of the output power. The output power can be adjustable in a certain range by adjusting the APC. The JW3107 broadband ASE light source can operate in the C band, the L band as well as in the C+L band.

Features

- High output power, the max output power can reach 100 mw.
- Wide operating bandwidth, covering C-band and/or L-band
- Excellent flatness within spectrum range
- Intelligent micro processing system and long distance control
- High stability and reliability
- Highly accurate ATC and APC control electro circuit

Applications

Manufacturing and Testing of Passive Optical Components

WDM Testing

Manufacturing and Testing of EDFA

Lab Testing and Fiber Optic Sensor Systems

Other Optical Fiber Engineering Applications

Specifications

MODEL	JW3107		
	C-Band	**L-Band**	**C+L Band**
Operating Wavelength	1525~1565	1570~1610	1525~1610
Optical Output Power	>10mW	>10mW	>10mW
Spectrium Density Stability	±0.05dB/15min	±0.05dB/15min	±0.05dB/15min
Output power stability in 15 minutes	±0.02dB/15min	±0.02dB/15min	±0.02dB/15min
Output power stabiltiy in 8 hours	±0.05dB/8hour	±0.05dB/8hour	±0.05dB/8hour
Flatness	2dB w/ GFF, 7dB w/o GFF	<10dB	<13dB
Output return loss	>45dB	>45dB	>45dB
TEC stability	±0.1℃	±0.1℃	±0.1℃
TEC operating range	25±5℃	25±5℃	25±5℃
Operating Voltage	85~264VAC	85~264VAC	85~264VAC
Power Consumption	<15W	<15W	<15W
Operating Temperature	0~45℃	0~45℃	0~45℃
Storage Temperature	-40~+80℃	-40~+80℃	-40~+80℃
Dimensions	280×260×112mm(Benchtop), 150×125×90mm(Module)		
Weight	4.5kg		
Remark: Module, Benchtop, 1U Rack available.			

Standard Packages

MODEL	**INCLUDES**
JW3107 all models	**JW3107 ASE Broadband Light Source, Power Supply Cable, Fuze, User Manual and Cotton swabs.**

Insertion Loss and Return Loss Test Station----JW3307A

JW3307A Insertion Loss/Return Loss Test Station

is a high performance loss test station that is designed specially for Optical Passive Components production Test and Lab Test. It combines three different working modes as a return loss meter, optical power and loss meter and a stable laser source in one test station. It features:

- High measurement accuracy
- Accurate analysis to wide dynamic ranger and weak signal
- Two LCD displays used, efficiently reduced eye strain of operators
- Leakage design of optical power meter module and light source module, obviously reduced operation procedures.
- Removable optical connector set design, easy to clean
- USB Port design, enables data transfer to a PC with USB cable

Specifications

Model	JW3307A
Optical Return Loss Test	
Wavelength	1310/1550nm
Optic Connector	FC/APC
Return Loss measurement Range	0 ~ 75dB
Calibrated wavelength	850/1300/1310/1550nm
Output Stability of laser source	0.05dB(1 hour@25° C)
Measurement accuracy	0.25dB
Resolution	±0.3dB
Optical Power and Insertion Loss Test	
Wavelength Range	800~1700nm
Calibrated wavelength	850/1300/1310/1550nm, more other wavelengths can be optional
Optic Connector（Power Meter）	Interchangeable FC/SC/ST/2.5mm Universal /1.25mm adaptors
Photo detector	InGaAs
Display modes	dBm/dB/xW
Measurement range	+3 ~ -80 dBm
Resolution	Non-linear 0.001dB ；Linear：0.001nw/μW/mW
Measurement accuracy	±5%
Other Specification	
Communication Port	USB
Power Supply	AC 90-260V，50～60Hz
Operation Temperature	-5℃～+55℃
Storage Temperature	-25℃～+70℃
Dimensions	300X260X120mm
Weight(kg)	3

Standard Packages

MODEL	INCLUDES
JW3307A	**JW3307A Main Body, Power Supply Cable, FC Adaptor, SC Adaptor, ST Adaptor, 25mm Universal, 1.25mm Universal Adaptor, User Manual, FC/APC-FC/APC patch cord FC/APC-FC/PC patch cord, Cleaning Cotton Swab, Fuse, USB Cable, PC software, Foot Pedal**

New in 2010

Insertion Loss and Return Loss Test Station(MM)----JW3307B

Specifications

Model	JW3307B
Optical Return Loss Test	
Wavelength(nm)	850/1300 (50/125 or 62.5/125)
Optical Connector	FC/APC
Return Loss measurement Range(dB)	0 ~ 75
Calibrated wavelength(nm)	850/1300
Output Stability of laser source(dB)	0.05/hour@25℃
Measurement accuracy(dB)	0.25dB
Linearity(dB)	0.05dB
Optical Insertion Loss Test	
Detector	InGaAs
Wavelength Range	800~1700nm
Calibrated wavelength	850/1300/1310/1550nm
Measurement range(dBm)	-80~+3
Optic Connector（Power Meter）	FC/SC/ST,2.5mm Universal /1.25mm adaptors
Uncertainty(dB)	0.25
Linearity(dB)	0.05
Display modes	Linearity and non-linearity
Resolution	Non-linear 0.01dB ；Linear：0.001nw/μW/mW
Measurement accuracy	0.01dB
Other Specification	
Communication Port	USB
Power Supply	AC 170-260V，50～200Hz
Operation Temperature(℃)	-5～+55
Storage Temperature(℃)	-25～+70
Dimensions(mm)	280X260X120
Weight(kg)	3.11

Standard Packages

MODEL	INCLUDES
JW3307B	JW3307B Main Body, Power Supply Cable, FC Adapter, SC Adapter, ST Adapter, 25mm Universal, 1.25mm Universal Adapter, User Manual, FC/APC-FC/APC reference patch cord, Scrambler, Extinction Module, Cleaning Cotton Stick, Fuse, USB Cable, PC software, Foot Pedal

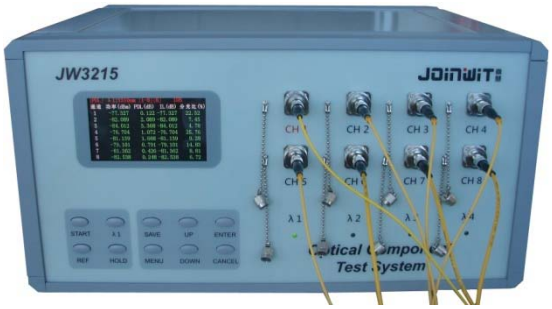
New in 2010

Optical Components Test System ---------JW3215

JW3215 Optical Components Test System is the new released multi Channel testers, It mainly focus on the PLC, and FBT coupler testy system requirements. It provide 8 channels power meter, maximum inner 1x4 optic switch, PDL controller, and can maximum measure 4 wavelength 1x64 splitter at one time. The function will be included insertion loss, PDL value, coupling ratio, access loss…and so on. This testing system can realize threshold setting, disqualification measurement value warming, auto-saving, EXCEL data sheet printing via the software connection with PC. It is am prefect measurement testing system for the PLC multiple testing, optical components PDL measurements, and long-term stability measurements…and so on.

Feature:

1. Provide 8 channels power meter
2. Maxim can test 64 channel PDL, IL, access loss and coupling ratio measurements
3. Inner 1x4 optical switch, can maxim measurement 4 wavelength test at the same time
4. Multi wavelength auto testing, threshold setting, auto saving, and EXCEL data sheet printing.



Specification

Model	JW3215
Wavelength Range（nm）	800～1700
Detector Tye	InGaAs
Output Power Measurement Range （dBm）	+3～-70
Measurement value	Insertion Loss/ Access Loss /PDL/Coupling Ratio/
PDL measurement uncertainty	±0.04dB
PDL measurement repeatability	±0.01dB
Insertion Loss uncertainty	±0.1dB
Resolution	0.001 dB
Laser Source Channel	4 channel optical switch
Power Meter Connector	FC/SC/ST/2.5mm Universal
Laser Source Connector	FC/PC
Displaying	4.3 inch Color\with software\EXCEL data sheet printing
Communication Port	RS232
Power Supply	90～260VAC

Standard Packages

MODEL	INCLUDES
JWD1100	**JW3215 Optical Components Test System, Power Supply Cord, Fuze, Instruction Manual and Cotton swabs.**

32Channel Power Meter---------JW3217

JW3217 is a new released multi-channel power meter. It combine the multi-function of graph interface displaying via PC, , auto-measurement shifting, data saving, data printing, and also realized simultaneous output power of 32 channel. This tester provide a friendly operation interface, via it's software, and can realized automatic monitoring, saving, data analyze, and printing function. It is a perfect instruments for the multi channel measurement, stabilize testing, and used in the fiber optic research and development area.

Feature:

- 32 channel simultaneous output power monitoring
- Stability testing monitoring
- Any time data printing
- Graph the output power changing.

Specification

Model	JW3217
Calibration wavelength（nm）	850,980,1300,1310,1480,1490,1550,1625
Detector Tye	InGaAs
Connector type	FC/PC
Output Power Measurement Range （dBm）	+3～-60
Communication Port	RS232
AC Power(V.50Hz)	160~200
Operate temperature(℃)	-10~+40
Storage temperature(℃)	-25~+70
Dimensions(mm)	220*440*350

Standard Packages

MODEL	INCLUDES
JW3217	**JW3217 32Channel Power Meter, Power Supply, RS232 cable, Instruction Manual and Cotton swabs.**

Fused Optical Couplers----SM Dual-window Optical Coupler

Description

Joinwit adopts the FBT technique to produce the SM coupler with the high performance and liability which achieve the advanced level of similar products in the world. The extremely low excess loss greatly increases the coupler's liability and long-term stability. Joinwit adopts the unique craft to eliminate the reflection of the 1X2 coupler's spare input fiber end and ensure its long-term stability and at least 60dB directivity. Joinwit also supply the 1XN (NXN) Tree/Star type coupler by grade-connection 1X2 coupler.

Features

Low PDL
Low Excess Loss
Good Directivity
Good environmental Stability
Standard/Flattened/Broadband/Star/Tree

Applications

Optical Fiber Communication Systems
Optical Fiber CATV
Passive Optical Network (PON)
Optical Amplifiers
Optical Access Networks/LAN
Monitoring Systems
Optical Fiber Sensor

Specifications

Type	Standard	Dual-window Brad	Single-Window Broadband
Central Wavelength(nm)	1310nm or 1550nm	1310nm and 1550nm	1310nm or 1550nm
Bandwidth(nm)	±20	±40	±40
Star Structure	4*4 8*8 16*16	4*4 8*8 16*16	4*4 8*8 16*16
Tree Structure	1*4 1*8 1*16	1*4 1*8 1*16	1*4 1*8 1*16
Typical Insertion Loss(dB)	6.3 9.5 13.0	6.6 9.6 13.2	6.6 9.6 13.2
Uniformity(dB)	0.7 1.0 1.3	1.5 2.2 3.0	0.9 2.8 3.7
PDL(dB)	0.10		
Mini. Directivity(dB)	60		
Operating Temperature(℃)	-40~+75		
Storage Temperature(℃)	-40~+85		
Packing Type	Customer Specify		
Industry Standard	Telcordia GR-1221-CORE		
Selectable Packing Size	①¢3.0X50 (Stainless steel sleeve packing) ②90X20X9 ③100X80X10 ④120X80X18 ⑤140X114X18		

Fused Optical Couplers----PON Optical Coupler

Description

Joinwit adopts unique bandwidth extension techniques (asymmetric craft) for the tri-windows couplers to change the characteristic of the wavelength and make tri-windows at 1310/1490/1550nm wavelength meet the precision requirements of the coupling ratio. This unit specially applies for the low-cost solution of " 3 in 1 network" and tri-wavelength bi-direction transmission with a single fiber in FTTx network.

Features

Low PDL
Low Excess Loss
Good Directivity
Good environmental Stability
Tri-operating windows

Applications

Optical Fiber Communication Systems
Optical Fiber CATV
Passive Optical Network (PON)
FTTx

Specifications

Type	Standard Tri-window Optical Couplers			
Central Wavelength/Bandwidth(nm)	1310±40, 1490±10, 1550±40			
Coupling Ratio (%)	1~50			
Typical Excess Loss(dB)	0.15			
Typical Insertion Loss(dB)	3.6			
PDL(dB)	0.10			
Directivity(dB)	55			
Temperature Coefficient(dB/℃)	0.002			
Operating Temperature(℃)	-40~+70			
Storage Temperature(℃)	-40~+85			
Max Operating Power(mw)	300			
Max Tensile Strength(N)	5			
Max Insertion Loss(dB)	1*4	1*8	1*16	1*32
	7.0	10	13.5	17.0
Insertion Loss Uniformity(dB)	1*4	1*8	1*16	1*32
	1.6	1.8	2.4	3.0
Industry Standard	Telcordia GR-1221-CORE			

Fused Optical Couplers----Multi-Mode Optical Coupler

Description

Joinwit adopts the FBT technique to produce the basic 1X2 coupler unit with the high-level performance. By grade connecting the basic 1X2 coupler unit, the Star/Tree coupler eliminates the component pattern sensitivity. It is widely used in the LAN, PON, other optical fiber communication systems and optical fiber sensor systems.

Features

Low PDL
Low Excess Loss
Good environmental Stability

Applications

Optical Fiber Communication Systems
Optical Fiber CATV
Optical Amplifiers
Optical Access Networks/LAN
Monitoring Systems
Optical Fiber Sensor

Specifications

Type	Multi-Mode			
Wavelength(nm)	850/1300			
Star Structure	2*2	4*4	8*8	16*16
Tree Structure	1*2	1*4	1*8	1*16
Typical Excess Loss(dB)	0.7	1.5	2.0	3.0
Max Insertion Loss(dB) @50/50	4.2	8.4	11.8	16.0
Uniformity(dB)	0.5	1.0	1.5	2.0
Fiber Type	Coring 50/125 or 62.5/125			
Operating Temperature(℃)	-40~+75			
Storage Temperature(℃)	-40~+85			
Packing Type	Customer Specify			
Industry Standard	Telcordia GR-1221-CORE			
Selectable Packing Size	①¢3.0X50 (Stainless steel sleeve packing) ②90X20X9 ③100X80X10 ④120X80X18 ⑤140X114X18			

Fused Optical Couplers----19" Rack Type Optical Coupler

Features

19" 1U standard type
Adapter or pigtail output
Optical Connector FC/PC,FC/APC,SC/PC,ST etc.
Applicable for various kinds of optical coupler
Applicable for WDM

Fused WDM----1310/1550nm Standard WDM

Description

Joinwit produce a variety of WDM with the different isolation by basic unit or basic unit grade-connection methods. It is widely used in upgrade, expansion or introduction of new business of the optical fiber networks. The experiment and practice show its good quality and high performance.

Features

Low Insertion Loss
High Isolation
Low PDL
Good directivity
Good environmental Stability

Applications

Optical Fiber Communication Systems
Optical Fiber CATV
Optical Fiber Test Equipment
Optical Fiber Access Networks
Optical Fiber Sensors

Specifications

Type	**Multiplexer**	**Demultiplexer**		
		Standard	**High Isolation**	**Ultra Isolation**
Wavelength(nm)	1310/1550nm			
Bandwidth(nm)	±15			
Max Insertion Loss(dB)	0.35	0.35	0.75	1.0
Mini Wavelength Isolation(dB)	18	18	30	40
±10nm bandwidth Typical Isolation(dB)	20	20	37	45
Directivity(dB)	＞60			
PDL(dB)	＜0.1			
Max bearing power(mw)	300			
Max Tensile Strength(N)	5			
Operating Temperature(℃)	-40~+70			
Storage Temperature(℃)	-40~+85			
Packing Type	Customer Specify			
Industry Standard	Telcordia GR-1221-CORE			
Selectable Packing Size	①¢3.0X50 (Stainless steel sleeve packing) ②90X20X9 ③100X80X10 ④120X80X18 ⑤140X114X18			

Features

Low Insertion Loss
Low PDL
High Return Loss
Uniform Power Splitting
Wide Operating Wavelength
Wide Operating Temperature
Good Environmental Stability
Qualified under Telcordia GR-1221 and GR-1209

Applications:

FTTx System
CATV Networks
Passive Optical Networks (PON)
Local Area Networks (LAN)
Test Equipments

Specifications:

Parameter	Specification								
Operating Wavelength (nm)	1260 ~ 1650								
Type	1x4	1x8	1x16	1x32	2x4	2x8	2x16	2x32	1x64
Insertion Loss (dB) Max.	7.3	10.8	13.9	17.0	7.8	11.2	14.5	17.8	20.5
Uniformity (dB) Max.	<0.8	<1.0	<1.2	<1.5	<1.0	<1.5	<1.5	<2.0	<2.5
PDL(dB)Max.	<0.2	<0.2	<0.3	<0.3	<0.3	<0.3	<0.4	<0.4	<0.3
Directivity (dB) Min	55								
Return Loss (dB) Min	50								
Operating Temperature (°C)	-40~ +85								
Storage Temperature (°C)	-40 ~ +85								
Fiber length	1m or custom length								
Fiber Type	ITU G652.D/G657.A Fiber								
Connector Type	Custom specified								

Note: All measurements were done at room temperature, and specifications exclude connectors

Ordering Information

PLCS	Port Type	Cable Type	Fiber Length	Connector Type	Package Style
PLC Splitter	1*4 1*8 1*16 1*32 1*64 2*32 Others Specify	0.25mm Bare fiber Ribbon Fiber Fan-out with 0.9mm Loose Tube 2.0mm Cable 3.0mm Cable	1 meter 2 meter 3 meter Others specify	FC/APC FC/PC SC/APC SC/PC ST/UPC LC/APC Others Specify	Stainless steel sleeve Plastic Module 19” 1U Rack Mount Others Specify

Micro Optics Products----1310/1550nm WDM

Wide Operating Wavelength Range
Low insertion loss

Features

Ultra Flat Wide Passband
High channel isolation
High stability and reliability
Epoxy free on optical path

Applications

System Monitoring
WDM system
Transmitters and Fiber lasers
Fiber optic amplifier
Fiber optic Instruments

Specifications

Parameter		MWDM-35/53
Pass Channel Wavelength Range（nm）		1520∽1600(or 1250∽1350)
Reflect Channel Wavelength（nm）		1250∽1350(or 1520∽1600)
Insertion Loss（dB）	Reflect Channel	≤0.5
	Pass Channel	≤0.6
Insertion Loss Variation（dB）		<0.3
Isolation	Reflect Channel	>12
	Pass Channel	>30
Insertion Loss Temperature Sensitivity(dB/℃)		<0.005
Polarization Dependent Loss（dB）		<0.1
Polarization Mode Dispersion（ps）		<0.1
Directivity（dB）		>60
Return Loss（dB）		>50
Power Handling（mW）		300
Operating Temperature（℃）		0∽+70
Storage Temperature（℃）		-40∽+85
Fiber Type		Corning SMF-28
Package Dimension（mm）		φ5.5×L34（L38 for 900um Jacket)

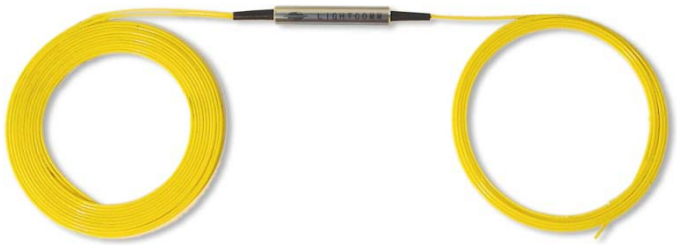
Ordering Information

Micro-WDM	Wavelength	Fiber Type	Fiber Length	In/Out Connector
	35=1310 pass/1550 reflect 53=1550 pass/1310 reflect	1=Bare Fiber 2=900um Jacket 3=3mm Cable	1=1 Meter 2=2 Meter	0=None 1=FC/APC 2=FC/PC 3=SC/APC 4=SC/PC 5=ST 6=LC

Micro Optics Products ----FTTx 1310/1490/1550nm WDM

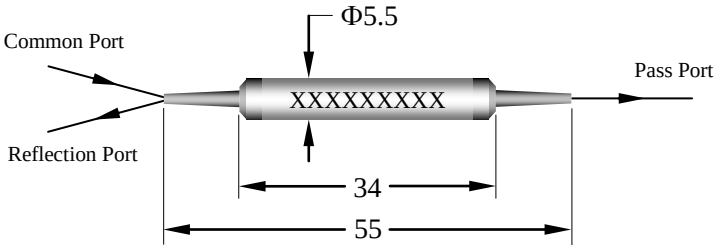
Features

Low insertion loss
Ultra Flat Wide Passband
High channel isolation
High stability and reliability
Epoxy free on optical path
Bi-Directional



Applications

ONU, OLT Equipments
Fiber-to-Home, Premises
Transmitters and Fiber lasers
WDM system
CATV system



Specifications

Parameter	Unit	Specifications
Central wavelength	nm	1310, 1490, 1550
Pass band	nm	1310±40, 1490±10 & 1550±10
Pass/Reflection wavelength	nm	On customer request
Pass band insertion loss	nm	≤0.8 (0.6 typical)
Reflection band insertion loss	dB	≤0.6 (0.4 typical)
Pass band isolation	dB	≥30
Reflection band isolation	dB	≥15
Directivity	dB	≥55
Return loss	dB	≥50
PDL	dB	≤0.1
Wavelength thermal stability	nm/ ℃	≤0.003
Insertion loss thermal stability	dB/ ℃	≤0.005
Power handling	mW	≤500
Operating temperature	℃	-40 ~ +85
Storage temperature	℃	-40 ~ +85
Dimensions	mm	Φ5.5× L34

*The above specification is without connector.

Ordering Information:

FTTH WDM	Wavelength	Fiber Type	Fiber Length	In/Out Connector
	15=1550 pass/1310&1490 reflect 34=1310&1490 pass/1550 reflect	1=Bare Fiber 2=900um Jacket 3=3mm Cable	1=1 Meter 2=2 Meter	0=None 1=FC/APC 2=FC/PC 3=SC/APC 4=SC/PC 5=ST 6=LC

Micro Optics Products ---CWDM Moudule

F e a t u r e s :

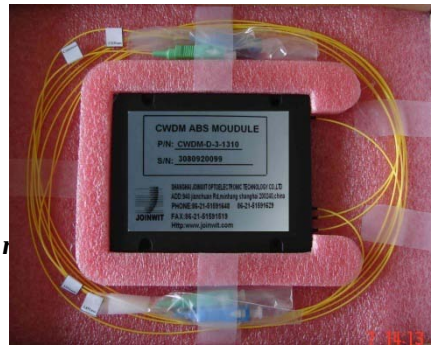
Low insertion loss

Wide pass band

High isolation

High stability and reliability

Epoxy free on optical path



A p p l i c a t i o n

CWDM systems

Line Monitoring

Fiber Optical Amplifier

CATV Fiber Optic System

S p e c i f i c a t i o n s :

Type		4 Channels	8 Channels
Insertion loss (dB)		≤2.0	≤3.5
Central wavelength (nm)		1271, 1291, 1311, 1331, 1351, 1371, 1391, 1411, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611	
Channel space (nm)		20	
Channel bandwidth (nm)		λc ± 6.5	
Channel flatness (dB)		≤0.4	
Channel uniformity (dB)		≤1.0	
Isolation (dB)	Demux adjacent channel	≥30	
	Demux non-adjacent channel	≥40	
	Mux	≥15	
Directivity (dB)		≥55	
Return loss (dB)		≥50	
PDL (dB)		≤0.15	
PMD (ps)		≤0.1	
Wavelength thermal stability (nm/℃)		≤0.003	
Insertion loss thermal stability (dB/℃)		≤0.005	
Power handling (mW)		≤500	
Operating temperature (℃)		0 ~ +70	
Storage temperature (℃)		-40 ~ +85	

Note: The above specification is without connector
Other specifications can be made on customer request

O r d e r i n g I n f o r m a t i o n

CWDM	Type	Port Number	Operating wavelength	Pigtail Type	Connector Type	Package Size

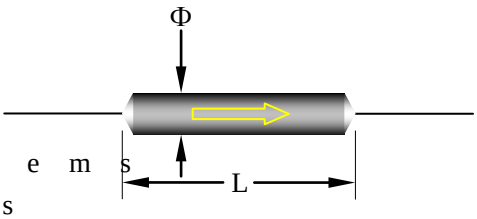
	M = MUX D = DMUX	1 X 2 1 X 3 1 X	1 4 7 1 n m 1 4 9 1 n m 1 5 1	0 = 250 um 1 = 900	F C / A P C S C / A	B l a c k C a s e M o d u l e

Micro Optics Products ---Isolator (ISO)

Features

H i g h i s o l a t i o n
L o w i n s e r t i o n l o s s
H i g h r e t u r n l o s s

Applications



E D F A
C o m m u n i c a t i o n S y s t e m s
T e s t i n g I n s t r u m e n t s

S p e c i f i c a t i o n s

Type	Normal Size				Mini Size	
	Single Stage		Dual Stage		Single Stage	Dual Stage
Operatin	1310 ± 15 or 1550 ± 15					
Grade	P	A	P	A	A	A
Peak	42	40	56	53	≥	≥
Minimum	32	30	52	50	≥	≥
Insertion	≤	≤	≤	≤	≤	≤
PDL (dB)	≤	≤	≤	≤	≤	≤
PMD (ps)	≤	≤	≤	≤	≤	≤
Return	65 /	60 /	65 /	60 /	55 /	55 /
Power	≤ 500					
Operatin	0 ~ +70					
Storage	-40 ~ +80					
Dimensio	Φ5.5× L30				Φ3.0× L26	

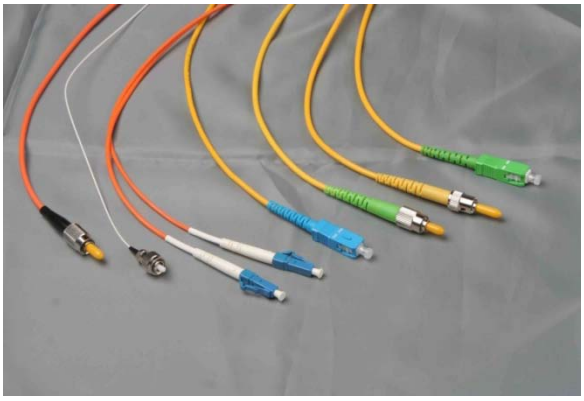
Note: The above specification is without connector
Other specifications can be made on customer request

Ordering Information

ISO	Type	Grade	Operating wavelength	Pigtail Type	Fiber Type	Connector Type	Package Size
	S = Single Stage D =	P = Perfect A = Average	10 = 1310nm 50 = 1550nm	1 = 250um 2 = 900	SMF-28 HI1060	FC/UPC FC/APC	N = Normal Size (Φ5.5×L30) M = Mi

Optical Cable Patch Cords & Pigtails

Description



The optical Fiber Connectors (Commonly we call Patch Cords) is a length of optical cable with connectors fixed on two ends to realize the optical path active connection. Pigtail is a length fiber cable with only one connector fixed on one end. If both sides of the connector or its end-face are different, we call it hybrid patch cord. According to the transmission medium, it divides Single Mode and Multi Mode; according to the connector structure type, it divides FC,SC,ST,MU,D4,E2000,LCetc.;according to the polished ceramic end-face, it divides PC,UPC and APC.

Features

Low Insertion Loss
High Return Loss
Good Repeatability
Good Exchangeability
High Temperature Stability

Applications

Optic-fiber Communication Systems
Optic-fiber Data Communications
Optic-fiber Access Networks
Optic-fiber CATV
LAN
Test Equipment
Optic-fiber Sensors

Specifications

Item	Unit	*FC,SC,ST/PC*	FC,SC,ST/UPC	FC,SC,ST/APC
Insertion Loss	dB	≤0.20	≤0.20	≤0.30
Repeatability	dB	≤0.10		
Exchangeability	dB	≤0.20		
Return Loss	dB	≥45(SM)	≥50(SM)	≥60(SM)
Fiber Type		Corning SMF-28TM, 9/125um (SM), 50/125um or 62.5/125um(MM)		
Operating Temperature	℃	-40~+80		
Storage Temperature	℃	-40~+85		
Durability	time	＞1000 times		
Industry Standard		Telcordia GR-326-CORE		

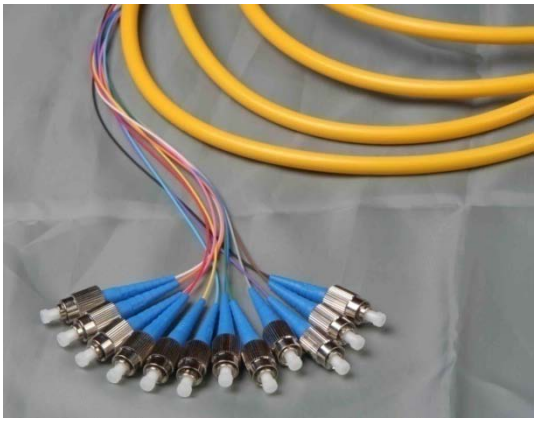
Note:

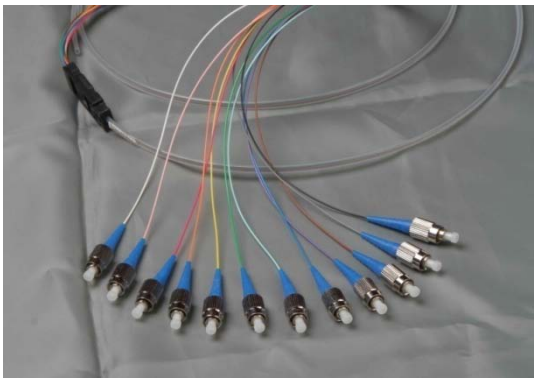
Specifications of each type patch cord cannot be listed here one by one because of variety of different kinds of patch cords. So please kindly to contact us for any more details!

Bunched (Ribbon) Fan-out Optical Cable Patch Cords

Description

Bunched (Ribbon) Fan-out Optical Patch Cord is protected and separated fiber ribbon (general 12 cores) with connector on the end to realize the separate fiber connection with the ODF. The quality and performance is reliable and stable.





Features

Low Insertion Loss
High Return Loss
Good Repeatability
Good Exchangeability
High Temperature Stability

Applications

ODF(Optical Distribution Frame)
Optic-fiber Communication Systems
Computer Networks
Optic-fiber Access Networks
Optical Fiber Test Equipment

Specifications

Item	**FC, SC, ST…**		
End-Face Type	PC	UPC	APC
Insertion Loss (dB)	≤0.20	≤0.20	≤0.30
Repeatability (dB)	≤0.10		
Exchangeability (dB)	≤0.20		
Return Loss (dB)	≥45	≥50	≥60
Fiber Type	Corning SMF-28TM, 9/125um		
Operating Temperature (℃)	-25~+70		
Storage Temperature (℃)	-40~+85		
Durability (time)	＞1000 times		
Industry Standard	Telcordia GR-326-CORE		

Water-proof Pigtails

Description

Water-proof Pigtails is generally used in the severe field environment, so it greatly depends on the components' reliability. Joinwit employs the advanced technique and production equipment to ensure its good performance and environmental stability. Joinwit provides various types available for customers, including such as Simplex, Duplex and 4 cores…etc.

Features

High Performance
High Tensile Strength; Anti-etched
Waterproof and Anti-corrosive
Easily Installed

Applications

Optic-fiber Communication Systems
Optic-fiber CATV
Connecting between Backbone Optical Cable and Receiver

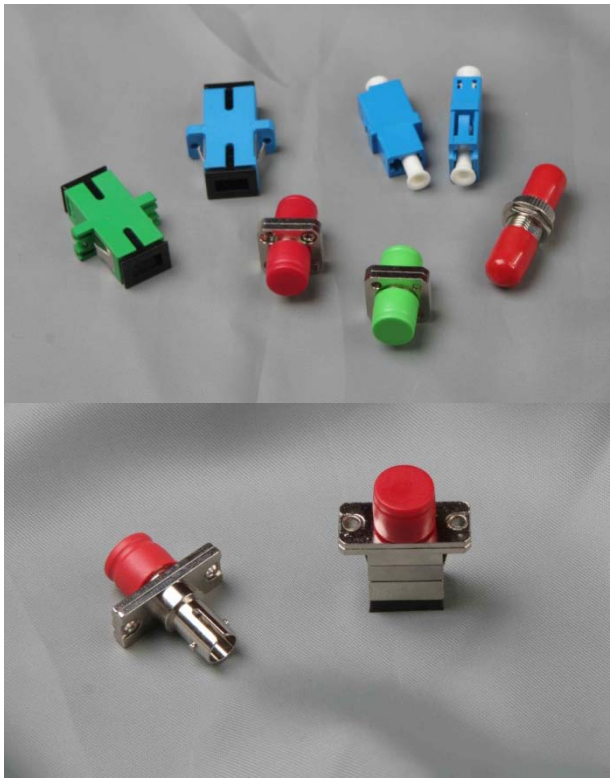
Specifications

Item	**FC/APC**	**SC/APC**
Insertion Loss (dB)	≤0.30	
Repeatability (dB)	≤0.10	
Exchangeability (dB)	≤0.20	
Return Loss (dB)	≥60	
Fiber Type	Corning SMF-28TM, 9/125um	
Operating Temperature ℃	-25~+70	
Storage Temperature ℃	-40~+85	
Industry Standard	Telcordia GR-326-CORE	

Optical Fiber Adapter & Hybrid Adapter

Description

The optical Fiber Adapter is the connection part in the active optical connectors. Joinwit provides the full range of adapters including FC,SC,ST and hybrid adapters. These adapters are widely used in ODF, optic-fiber communications equipment, optical fiber instruments etc. The performance is stable and reliable.



Features

Accurate Dimensions
Good Exchangeability
Good Repeatability
Good wear Resistance
Good Temperature Performance

Applications

Optic-fiber Communication Systems
Optical Fiber Sensor
Optical Fiber Test Equipment
Optic-fiber CATV

Specifications

Item	**FC/PC**	**FC/APC**	**SC/PC**	**SC/APC**	**ST**
Insertion Loss (dB)	≤0.20				
Repeatability (dB)	≤0.10				
Exchangeability (dB)	≤0.20				
Ferrule Material	Ceramic				
Operating Temperature ℃	-40~+80		-25~+70		-40~+80
Storage Temperature ℃	-40~+85				
Industry Standard	Telcordia TA-NWT-001209				

FC(Male)-LC(Female), LC(Male)-SC(Female) Hybrid Adapter

Description

Joinwit design the practical and exquisite FC-LC,LC-SC hybrid adapters to meet the customers' special requests. The hybrid adapters solve the converted connection between 1.25mm and 2.5mm ferrules. In the mean time, it also solve the problem of large insertion loss and damageable disadvantage during the converted connection of optical patch cords. It is a good choice for converted connection between the optic fiber equipment and other optical fiber test instruments.

Optical Bare Fiber Adapter

Description

The bare fiber adapter is used to connect the bare end-face of the optical fiber or optical fiber cable. Together with test instruments with FC or SC connectors, they could be easily used for the intuitionistic inspection and faults identification. It is applicable for the lab research and field work.

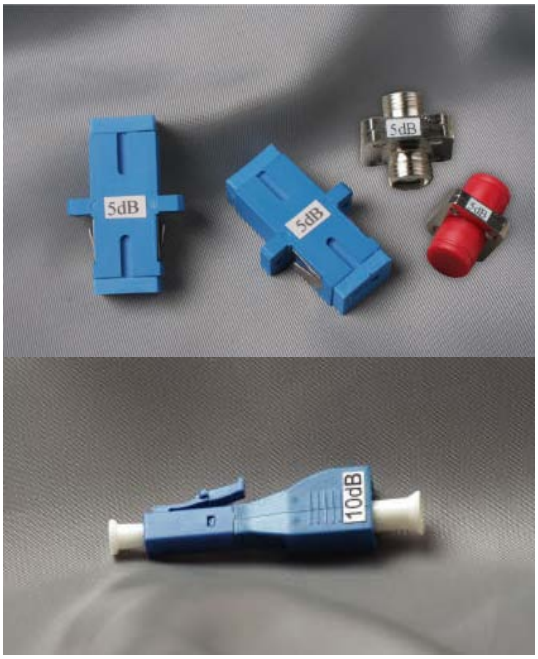
Applications

Optical Fiber Communication System
Optical Fiber Sensor
Optical Fiber Test Equipment
Optical Fiber CATV

Fixed Attenuators

Description

Fixed Attenuator is a precise passive component which provides different fixed attenuation value to meet optical fiber projects' demands. Joinwit's fixed attenuator is made of high precision adapter and features high attenuation precision and good performance.



Features

High Attenuation Precision
Good Stability
Small size

Applications

Optic-fiber Communication Systems
Optical Fiber Sensor
Optical Fiber Test Equipment
Optic-fiber CATV

Specifications

Item	**FC/PC**	**SC/PC**	**ST**
Attenuation value (dB)	3,5,8,10,15,20		
Attenuation precision (dB)	±10%		
Operating Temperature ℃	-25~+70		
Storage Temperature ℃	-40~+85		
Industry Standard	Telcordia TA-NWT-001209		

In-line Fixed Attenuator

Applications

Optic-fiber Communication Systems
Optical Fiber Sensor
Optical Fiber Test Equipment
Optic-fiber CATV

Specifications

Item	**Standard**	**Wavelength Flattened**	**Broadband**
Operating Wavelength(nm)	1310 or 1550		1310/1550
Bandwidth(nm)	±20	±40	
Attenuation value (dB)	1~30		
Return Loss (dB)	≥40		
Operating Temperature ℃	-40~+85		
Storage Temperature ℃	-40~+85		
Industry Standard	Telcordia TA-NWT-001209		

Variable Attenuator

Description

The variable optical attenuator could continually and variably attenuate the light intensity in the optical fiber transmission.

Specifications

Item	**Specification**
Operating Wavelength(nm)	1310/1550
Attenuation value (dB)	0.5~30
Excess Loss (dB)	＜0.3
Operating Temperature ℃	-40~+85
Storage Temperature ℃	-40~+85
Industry Standard	Telcordia TA-NWT-001209

Collimator Variable Optical Attenuator

Description

The collimator variable optical attenuator is an useful attenuation tool, which the attenuation value can be adjustable by mechanical adjustment. It employs the principle of light shading between the two collimators to control the attenuation value. It features wide attenuation range, high precision, low insertion loss and compact size.

Applications

Optic-fiber Communication Systems
Optic Passive components test
Optics Lab Use

Specifications

Item	**1310**	**1550**	**SM DW**	**MM SW**
Wavelength(nm)	1310±40	1550±40	1310±40&1550±40	850±40 or1310±40
Attenuation Range(dB)	0.6~60	0.6~60	0.8~60	0.8~40
Insertion Loss(dB)	0.6	0.6	0.6	0.8
Return Loss(dB)	50			30
Adjustment Precision(dB)	0.02			
Fiber Type	SMF-28			50/125 or 62.5/125 MM
PDL	0.15			
Operating Temperature ℃	-25~+70			
Storage Temperature ℃	-40~+85			

Note:

Output connector type can be made on customers' request

JW5001 Optical Cable Emergency Tool Kits

JW5001 Optical Cable Emergency Toolkits is composed of most of the essential tools, it is suitable for general usage during the fiber installation and maintenance of fiber networks.

No.	Tool Name	Qty	Function
1	Fiber Optic stripper**(CFS-2)**	1	Peeling the coat of the fiber
2	Assembled sleeve wrench	1	Fixing splice closure/terminal box
3	2M Tape Measures	1	Measuring the length of the fiber cable
4	Utility Knife	1	Accessorial tool for peeling the fiber cables
5	Piano wire clamp	1	Nipping the strengthening core of the fiber cables
6	Cross Fiber reamer	1	Peeling the fiber cables
7	Nipper	1	Entwining the fiber cables
8	Scissors	1	Snipping the fiber of the cable
9	Pliers	1	Snipping the steel wire of the fiber cables
10	Acuate clamp	1	Accessorial tool for the splicing
11	Mini Screwdriver	2	Fixing the screws
12	Inner-hexagonal Wrench	1	Fixing the inner hexagonal screws
13	Adjustable Spanner	1	Accessorial tool for the splicing
14	Assembled Screwdriver	1	Loading and uploading the fiber optic splice closure
15	Alcohol Pump Bottle	1	Cleaning the fiber
16	Mark Pen	1	Marking the fiber
17	Flashlight	1	Lighting at night
18	diagonal cutting pliers	1	Accessorial tool for peeling the fiber cables
19	Voltage test pen	1	Testing the security of the electrical source and electrical wire
20	Loose skinning pliers	1	Peeling the loose of the fiber cables
21	Cleaning Air Ball	1	Blow off dust
22	Carrying Case	1	Containing the above tools

JW5003 cable Inspection & maintenance tool kits

JW5003 cable Inspection & maintenance tool kits composed of JW3205 mini power meter, JW3304N fiber ranger, fiber cleaver and other optical tool kits. This set of tool kits can test the output power, Identify the long and short distance fault locations, connect the cables and so on. JW5003 is mini in size, convenience for carrying, quite popular used in the field of optical cable maintenance.

Standard configuration

No.	Name	Model No	Set	Usage
1	Fiber Ranger	JW3304N	1	Identify the fault location for the long and short distance
2	Alcohol Bottle	5mL	1	storing alcohol
3	Optical Fiber Cleaver		1	Cleave the fiber
4	Mini Power Meter	JW3205	1	Test the output power
5	Hexangular wrench		1	Take apart or assemble the splicing closure
6	CFS－2 Fiber optic stripper		1	Strip the jacket or coated fiber
7	wire-cutter		1	Cut the strengthened cable core
8	Monkey Wrench	8”	1	Take apart or assemble the splicing closure
9	Cutter		1	Strip the fiber （extra refill cutter）
10	Cross Screwdriver		1	Take apart or assemble the splicing closure
11	Straight Screwdriver		1	Take apart or assemble the splicing closure
12	User manual	JW5003	1	Instruction and maintenance for
13	Carry Case	JOINWIT	1	Contain all above tools

JW5004 FTTx Tool Kits

This set of tool kits is especially used in the FTTx solution, combine the function of the in-door cable stripper, cleaver, cleaning, and testing. It is an perfect tool kits in the fiber optic maintance.

NO.	Tool Name	Qty	Usage
1	Fiber Optic stripper	1	Peeling the coat of the fiber
3	rubber-insulated fiber cable stripper	1	Peeling the coat of the cables
4	Alcohol Bump Bottle	1	storing alcohol
5	Cleaning Cotton Swabs	2	cleaning fiber
6	JW3105P Visual Fault Locator	1	Visually checking breakpoints, poor connections, bending or cracking in fiber optic cables
7	JW3208 optical power meter	1	Test the output power and fiber loss
8	Optical Fiber Cleaver	1	Cleave the fiber
9	Carrying Case	1	Containing the above tools

JW5002N-Fiber Inspection& Cleaning Kits

JW5002N Fiber Inspection and Cleaning Kits includes everything you need to perform inspection and cleaning of the fiber end faces, including Fiber Patch Cords, Bulkhead connections/In-adaptor ferrules and fibers in preparation for splicing applications. This tool kits contains following items:

1) **JW5005N Probe Fiber Microscope with 200x magnification----1pcs**
   To perform fiber inspections on both patch cords and bulkhead adapters.
   Including patch cords inspection tips of Univ. 2.5mm and Univ. 1.25mm；
   Bulkhead inspection tips of FC/PC,SC/PC, ST/PC and LC/PC.
2) **JW3105P Visual Fault Locator-----1pcs**
   Visually checking breakpoints, poor connections, bending or cracking in fiber optic cables
3) **JW5006 Fiber Connector Cleaner(QAM Cleaner)----1pcs**
   To perform patch cords cleaning.
4) **JW5008 Pen-style Fiber Cleaner - 2.5mm&1.25mm----1pcs of each**
   To perform bulkhead/in-adaptor ferrule cleaning
5) **Alcohol Bump Bottle----1pcs**
6) **Cleaning Cotton Swabs----2pouch**
7) **Hard Carrying case-----1pcs**
   To place above items

The pictures of all the items are given as below:

Field Fiber Microscope

JW5003 Field Fiber Microscope is a low cost and high quality fiber inspection tool which is available in 400X magnification and the white LED light to provide coaxial illumination to connector end-faces. This is method of illumination products high-resolution detail of end-face scratches, defects and contamination.

Features of JW5003 Field Fiber Microscope

- **Portable and easy to use, ideal for filed operation**
- **Magnification:400 times, can be used in both SM and MM fibers**
- **Optical Connector: 2.5mm universal adapter, 1.25mm universal adapter**
- **Color: Black or white**
- **Power Supply: AAA batteries**
- **Battery Life: 40hours**
- **A specialized design to protect the eyesight**

JW5005N Probe Fiber Microscopes offers **200x or 400x magnification** for the fibers of 125um diameter (both SM and MM fibers are included). It not only can be used to inspect the **male connector ends** but also to inspect the **female bulkhead adapters.**

Probe with handheld monitor

Probe with video capture card and work with PC （For Optional）

Specification

Magnification	200X or 400X alternative
AV output	PAL
Display Screen	3.5〃TFT 220 K LCD
Power Consumption	3W
Working Temperature	-10℃—+50℃
Storage Temperature	-20℃—+60℃
Voltage	12V recharge battery incl. or DC 12V, W/adaptor
Working Hours	More than 6 hours
Dimension	monitor: 205mm(L)×94mm(W)×25mm(H); microscope:φ23mm×160mm

Configuration of JW5005-N

Item/Model	Name	Qty	Remark
JW5005N	Fiber Inspection Probe	1pcs	**Standard Accessories**
JW35	Handheld Display (3.5inch)	1pcs	
2.5mm/PC-M	To inspect 2.5mm male connectors	1pcs	
1.25mm/PC-M	To inspect 1.25mm male connectors	1pcs	
FC/PC-F	To inspect FC/PC in-adapter ferrule	1pcs	
SC/PC-F	To inspect SC/PC in-adapter ferrule	1pcs	
LC/PC-F	To inspect LC/PC in-adapter ferrule	1pcs	
	Battery Charger	1pcs	
	Hard Carrying Case	1pcs	
	User Manual	1pcs	
JW-20	**Video Capture Card along with software**	**1pcs**	**Optional Accessories**
SC/APC-F	**To inspect SC/APC female connectors**	**1pcs**	

2.5mm/APC-M	To inspect 2.5mm/APC male connectors	1pcs	
1.25mm/APC-M	To inspect 1.25/APC male connectors	1pcs	

Fiber Connector Cleaner ------JW5006

Features

- Safe and environment friendly: No chemicals and other waste such as alcohol, methanol, cotton tips or lens tissue; Safe to operator and no hazard to environment; No ESD contamination.
- User friendly: With few simple steps, ideal cleaning result can be achieved, whether the connector is contaminated by oil or dust.
- Excellent result: Fast, effective, repeatable cleanings
- Economical: New design for low cost; One unit is good for over 500 cleaning; the cartridge is replaceable; Easy to replace. Wide application areas: It can be used in lab environment. It is also suitable for fiber optic construction, maintenance, and equipment manufacture.
- Wide usability: It can be used for SC, FC, ST, D4, LC, DIN and Bionic connectors. Cleaning tape is replaceable, thus reducing long-term cost

Specification

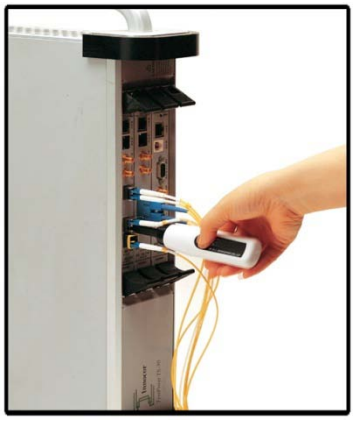
Type	JW5005 Fiber Connector Cleaner
Cleaning Times	Over 500 times per reel
Cleaning Result	-20 to -50 dB （Return Loss）
Operating Temperature	-10℃ to +50℃
Weight	100 g

Ordering Information

Name	Function description	Quality
Standard Accessories		
JW5005 Fiber Cleaner	Cleaning the fiber connector ferrule (internal reel tape is included)	1 Set
Optional Accessories		
Reel Tape	Replacement Reel Tape of JW5005, can be sold with extra cost	1pcs

Electromotive Fiber End-face Cleaner ------JW5007

The JW5007 electromotive fiber-end face cleaner is designed not only to clean the male connector ends, but also to clean the female bulkhead adapters (Ferrule end-faces inside the adapters). It is a convenient and simple cleaning tool in fiber network maintenance and fiber components production.



Features

- Clean fiber end-face of PC and APC ferrule in diameter 2.5mm &1.25mm.
- Clean fiber end–face for male connector of ferrule and female connector of flange.
- Cleaning directly and without any cleaning liquids
- Only 3 seconds to finish the cleaning work and the cleaning grade up to 88%~98%
- Suitable for complex environment and field operation
- Low cost and high quality cleaning material
- Two AA batteries and continues 100 hours operation

Note:

JW5007 electromotive cleaner, is an accessorial tool for the JW5005 series Fiber Microscope, It mainly used for fiber end-face besmirch cleaning. It can be used for PC, APC (female) end-face cleaning inside 2.5mm, 1.25mm deep aperture. When do cleaning, press the ON/OFF button for 3 seconds can finish the cleaning.

Cleaning Materials Introduction

2.5mm Cleaning Swab：500pcs/box

1.25mm Cleaning Swab: 300pcs/box

Note：The cleaning times for each swab cannot be more than 30 times and each cleaning time cannot be more than 3 seconds

In-adaptor Ferrule Cleaner ------JW5008

The JW5008 Pen-style fiber cleaner is designed specially to only clean the female bulkhead adapters (Ferrule end-faces inside the adapters).It is a convenient and simple cleaning tool in fiber network maintenance and fiber components production.

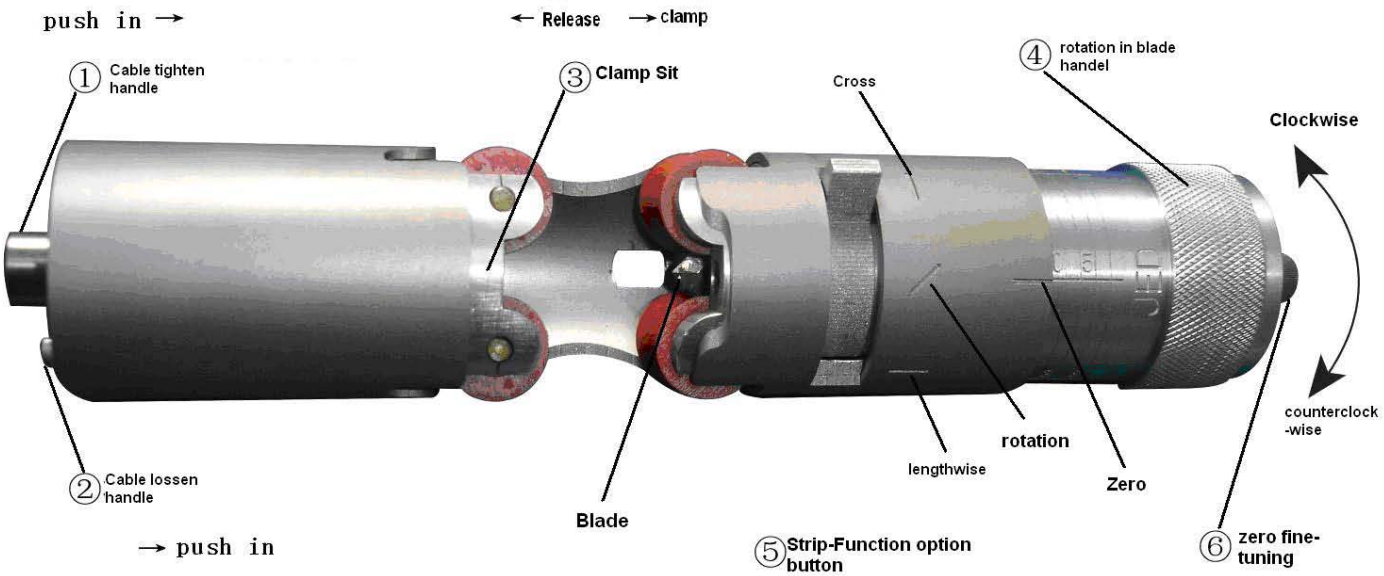
Features

- Over 500 cleaning times for fiber end-faces
- Cleaning grade up to 95%~99.9%
- For oil stain and water, the cleaning result is much better than traditional cotton swabs
- Support 1.25mm (LC, MU) and 2.5mm (SC,FC,ST)
- Pocket size and easy to use
- Low cost and high performance

The JW5009 Multi-Function Fiber Cable Stripper is a powerful manual tool which specially used in stripping of the cable sheath. The perfect design of JW5009 Fiber Cable Stripper created a great improvement to the cable reliability and safety during cable installation, especially under on line cable stripping.

Main Functions and features：

- ✓ **Inimitable Design**: One time stripping available at any position of the cable
- ✓ **One knife for multiple using:** Cable Stripping available in directions of lengthwise, cross as well as revolving!
- ✓ **Feed size can be adjustable**: Knife feed size forwards 0.5mm during every time rotation by feed handle, it highly improved the accuracy of feeding.
- ✓ **Suitable for different size of cables**: Diameter range of Fiber Cable:Ø8~Ø24mm; Thickness range of cable sheath : 0~6mm .
- ✓ **One pushing to make in place clamping structure**: To fix and loosen the cable quickly.



Operating Instructions:

Stripping Methods:

Across Stripping, Lengthwise stripping and Rotation Stripping all are available.

Procedures of Cable stripping

Please refer to above picture for better understanding, details of the procedures are given as below (see next page):

1) ④&⑥ clockwise direction for feed, counter clock wise for revise function.
2) Scale return to zero: Adjustment by handle rotation, to make “0”align to scale reference line.
3) Press heavily “Cable loosen handle”, push out“Cable tighten fitting ” to make enough space to place the cable for stripping.
4) Push in “Cable tighten handle”” to make the cable to be fixed by cable tighten fitting(but do not too tighten)
5) Confirm the stripping method, then put “Cable stripping direction handle” to align the correspond position.
6) To define the knife feed size as per cable sheath thickness, revolve clockwise “feed handle” to reach the expected feed depth.
7) Stripping cable
8) After finish stripping, press heavily “Cable loosen handle” and then use the cable to push “Cable tighten fitting” , then take out the stripped cable.
9) To clean JW5006, make the scale line align to zero and put it into the carrying case.

Special Notes:

Changing stripping method, needn’t loosen the cable, please act as below procedures:

a) To make the scale line align to zero
b) Take “Cable stripping direction handle”to align the correspond position, then perform as per procedure from 6~8 as above.

Blade replacement:

If the blade be used is not sharp enough or damaged by any occasion, then the user can replace the new blade by loosen the screw.

Clean and maintenance:

a) Wipe off the chippings, water, oil and other unclean things.
b) Spreading proper oil on the blade to avoid rust.
c) Place it well in the specified tool kits.

Tools for Fiber Cable

Lengthwise Fiber Cable Stripper

Based on lengthwise function, we increase the design of double-blade.
It is ingenious, time saving, labor saving.
It is an absolutely necessary tool in Optical Cable Stripping.
Used for stripping all kinds of optical cable lengthways(¢10~¢30mm)

Across and Lengthwise Fiber Cable Stripper

Based on lengthwise fiber cable stripper, increased across stripping function.
It can strip both across and lengthways.
It is an absolutely necessary tool in Optical Cable Stripping.
Used for stripping all kinds of optical cable lengthways(¢10~¢30mm)

Side Fiber Cable Ripper

Use for stripping the protective covering of aluminum armor plastic and nonmetallic strengthen component optical cable.

Fiber optic cable jacket slitter

Fiber Optic Cable Jacket slitter is an efficient and indispensable tool for fiber optic cable termination. It easily slits the PVC cable jacket into two halves before crimping. In both field and plant applications, time is saved and consistency is resulted with this precise and innovative tool.
Cable can be processed
¢1.5~1.9MM
¢2.0~2.4MM
¢2.5~2.9MM
¢3.0~3.3MM

Optical Connector Introduction *(For Power Meters & Light Sources)*

Optical Adapters for Optical Power Meter Output

Option 1: FC, SC, ST Interchangeable / 2.5mm universal connector adapter Port

is the most commonly used connector type for Joinwit Optical power meters. It features:

a) Interchangeable FC, SC, ST connector adapters, which means the user can choose any of the FC, SC, ST adapters to be fixed well with the connectors. Changing the adapter is very simple: unscrew one and screw in the next. Please refer to the picture below for a better understanding.

b) 2.5mm Universal connector adapter. After unscrewing any of the interchangeable connector adapters, the user will see a fixed 2.5mm metal plug which we call a 2.5mm universal connector adapter. It can accept most of the 2.5mm diameter ferrule connectors, such as FC,SC, ST,DIN, E2000 and SMA. It means that with one plug a variety of connectors can be connected as long as the ferrule diameter is 2.5mm. These connectors however use only a **push/pull mechanism** and cannot to be fixed or screwed. Please refer to the right picture for a better understanding.

Note: Usually, if no customer special requests, we will use this type connector port as the standard adaptor for our Handheld optical power meters.

Option 2: LC, SC, ST, FC Interchangeable adapters Port (No Universal Adapter Available)

To meet the requirements of the LC connector type, we specially released the **Option 2** interchangeable connector adapters. It features:

a) LC, SC, ST, FC connector adapters can be interchangeable, which means the user can choose any one of LC,SC ,ST and FC adapters to be fixed well with the connectors. Changing the adapter is very simple, unscrew one and screw in the next. Please refer to the picture below for a better understanding.

b) **No universal connector adapter available.**

Please refer to the pictures below for a better understanding!

Optical Adapters for Light Source Output

Option 1: FC fixed connector Port

FC fixed connector port type is the most commonly used in Optical Light Sources with features of reliability and high accuracy in measurement!

Note: Usually, if no customer special requests, we will use this type connector port as the standard adaptor for our Handheld optical Light Source.

Option 2: FC, SC, ST interchangeable connector Port

FC, SC, ST connector adapters can be interchangeable, it means the user can choose any one of FC,SC ,ST adapters to be fixed well with the connectors. Changing the adapter is very simple, unscrew one and screw in the next. Please refer to the picture below for a better understanding.

Note: Connecting directly with the 2.5 ceramic ferrule is not recommended in order to avoid any damage of the ceramic ferrule. Please connect with connectors after screwing the corresponding connector adapter.

To satisfy with customers' various requests for adaptors, we also can supply custom made adapters according to customers' special requests. Detailed adapter pictures cannot be shown here individually, so please feel free to ask us if what you require is not presented here!