

Optical Fiber Test Instruments

- *Optical Power Meter*
- *PON Optical Power Meter*
- *Optical Light Source*
- *Visual Fault Locator*
- *Optical Multi-meter*
- *Optical Variable Attenuator*
- *Optical Talk Set*
- *Optical Fiber Identifier*
- *Fiber Ranger*

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Handheld Optical Power Meter-----WY-2007 Series

WY-2007 Handheld Optical Power Meter is newly designed fiber optic tester, it aims at fiber network installation, fiber network engineering acceptance and fiber network maintenance. Combined usage with WY-3007 handheld optical light source, it offers a quick and accurate testing solution on both SM and MM fibers. Compared with usual power meters, the WY-2007 has more great functions/features of automatic wavelength identification and switching and intelligent backlight control. Also the WY-2007 features good appearance, good touch feeling and considerate humanity design.

Features

- Wave ID—Automatic wavelength identification and switching (when used with WY-3007 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 adaptor for power supply
- Low battery indication



Specifications

Model	WY-2007A	WY-2007C
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(°C)	-10~+60	
Storage Temperature(°C)	-25~+70	
Outline size (mm) /weight	180*90*45(250g)	

Standard Packages

MODEL	INCLUDES
All WY-2007 Models	WY-2007 Optical Power Meter, 3pcs 1.5V batteries, AC Adaptor, User Manual, Cotton swabs and Soft carrying case.

Optical Power Meter-----WY-2005 Series

WY-2005 optical power meter

Is a handheld optical power meter, which can be used for absolute optical power measurements as well as for relative loss measurements in optical fibers. A $\varnothing 1.0\text{mm}$ photosensitive area photodiode is used to significantly improve the stability and the reliability. It features ingenious appearance, a wide range of power measurement, high accuracy, an user self-calibration function and a 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
- Optional 10 minutes Auto-off function
- AA alkaline batteries can last more than 140 hours, AC adaptor also available
- Low battery power indication



Applications

Maintenance in Telecom

Maintenance CATV

Test Lab of Optical Fibers

Other Fiber Optic Measurements

Specifications

MODEL	WY-2005A	WY-2005B
Wavelength(nm)	800~1700nm	
Detector Type	InGaAs	
Detector Size	$\varnothing 1.0\text{mm}$	
Measurement Range (dBm)	-70~+10	-50~+30
Uncertainty	$\pm 5\%$	
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($^{\circ}\text{C}$)	-10 ~ +60	
Storage Temperature($^{\circ}\text{C}$)	-25 ~ +70	
Relative Humidity	0 to 95% (non-condensing)	
Dimension(mm)	190X100X50	
Weight(g)	370	

Standard Packages

MODEL	INCLUDES
All WY-2005 Models	WY-2005 Optical Power Meter, 3pcs 1.5V batteries, AC Adaptor, Instruction Manual, Cotton Tampon and Soft carrying case.

Optical Power Meter-----WY-2003 Series

WY-2003 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
- Optional 10 minutes Auto-off function



Applications

Maintenance in Telecom

Maintenance CATV

Test Lab of optical fibers

Other Fiber Optic Measurements

Specifications

Type	WY-2003A	WY-2003B
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(°C)	-10 ~ +60	
Storage Temperature(°C)	-25 ~ +70	
Relative Humidity	0 to 95% (non-condensing)	
Dimension(mm)	175x82x33	
Weight(g)	310	

Standard Packages

MODEL	INCLUDES
All WY-2003 Models	WY-2003 Optical Power Meter, Protective Rubber Boot, 3pcs 1.5V batteries, Instruction Manual, Cotton Tampon and Soft carrying case.

Optical Power Meter-----WY-2004 Series

WY-2004 intelligent handheld power meter

is a perfect testing instrument for both laboratory and field applications in optical fibers. It features friendly User Interface with menu operation, automatic frequency identification, large LCD display with backlight and dual-way powering system. The internal microprocessor and linear amplifier technology ensure the long-term accuracy. In addition, WY-2004 has a memory capacity of 240 records and can transfer the measurement data through a RS232 communication port to a PC for printing or editing. Moreover, it can also perform on-line data upload after program control.

Features

- Memory capacity of 240 data items; enables data transfer to a PC via RS232 communication port.
- High accuracy and wide dynamic range
- Automatic frequency identification
- Power measurements in dBm or mw and insertion loss in dB
- Low battery indication
- Energy-saving design, 10 minutes Auto power off function

Applications

Maintenance in Telecom

Maintenance CATV

Test Lab of optical fibers

Other Fiber Optic Measurements



Specifications

Type	WY-2004A	WY-2004B
Wavelength(nm)	800~1700nm	
Detector	InGaAs	
Measurement Range (dBm)	-70~+6	-50~+26
Uncertainty	±5%	
Communication interface	RS232	
Date storage capacity	240 records(Contains Measurement wavelength, Testing value and Time)	
Identification Frequency Range	10Hz~60KHz	
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	Rechargeable Battery + Power Supply Adaptor	
Battery Operating Time	21 hours	
Operating Temperature(°C)	-10 ~ +60	
Storage Temperature(°C)	-25 ~ +70	
Relative Humidity	0 to 95% (non-condensing)	
Dimension(mm)	210X115X55	
Weight(g)	520	

Standard Packages

MODEL	INCLUDES
All WY-2004 Models	WY-2004 Optical Power Meter, Protective Rubber Boot, Rechargeable battery, Power Supply Adaptor, Software disk, Data transfer cable(RS232), Instruction Manual and Cotton Tampon. Rigid hard carrying case can be optional.

Optical Power Meter-----WY-2001 Series

WY-2001 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. WY-2001 in combination with the WY-3001 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.
- Energy-saving design, 10 minutes Auto-off function

Applications

Maintenance in Telecom

Maintenance CATV

Test Lab of optical fibers

Other Fiber Optic Measurements



Specifications

Type	WY-2001A	WY-2001B	WY-2001C	WY-2001D
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(°C)	-10 ~ +60			
Storage Temperature(°C)	-25 ~ +70			
Relative Humidity	0 to 95% (non-condensing)			
Dimension(mm)	115X60X20			
Weight(g)	105			

Standard Packages

MODEL	INCLUDES
All WY-2001 Models	WY-2001 Optical Power Meter, Alkaline battery, Instruction Manual, Cotton Tampon and Protective Holster.

Optical Power Meter-----WY-2002 Series

WY-2002 handheld optical power meter

is the oldest portable test instrument in the Winyuan power meter series. It features compact size, ease-of-use and economy advantages. It can be used for absolute optical power measurements as well as for relative loss measurements of optical fibers. WY-2002 is an essential test instrument in Optical Communications, CATV and other Fiber Optic measurements.

Features

- Displays optical power in mW, dB and dBm
- Energy-saving design, 10 minutes Auto-off function
- Low battery power indication

Applications

Maintenance in Telecom

Maintenance CATV

Test Lab of optical fibers

Other Fiber Optic Measurements



Specifications

Type	WY-2002A	WY-2002B	WY-2002C	WY-2002D
Wavelength(nm)	800~1700nm			
Detector	InGaAs			
Measurement Range (dBm)	-70~+3	-60~+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	Rechargeable battery +Power Supply Adaptor (Alkaline Battery can be optional)			
Battery Operating Time	28 hours (Rechargeable battery)			
Operating Temperature(°C)	-10 ~ +60			
Storage Temperature(°C)	-25 ~ +70			
Relative Humidity	0 to 95% (non-condensing)			
Dimension(mm)	180x85x30			
Weight(g)	305			

Standard Packages

MODEL	INCLUDES
All WY-2002 Models	WY-2002 Optical Power Meter, Protective Rubber Boot, Rechargeable battery, Power Supply Adaptor, Instruction Manual and Cotton Tampon.

WY-2006B PON Optical Power Meter

Is an upgraded version of WY-2006 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 WY-2006B PON power meter or computer for data review.
- WY-2006B 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	WY-2006B
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(°C)	-10~60
Storage temperature(°C)	-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

PON Optical Power Meter-----WY-2006

This new **PON power meter WY-2006** aims at the FTTx application and maintenance which can be used to test and estimate the signals of the voice, data and video at the same time. It is an essential and ideal tool 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**
- USB communication port enables data transfer to a PC
- **1000** measurement items can be saved in WY-2006 PON power meter or computer for data review.
- WY-2006 PON power meter offers up to **10** different threshold sets in total; Three status LEDs represents 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
- Backlight LCD display supports night operation.
- **Optional 10** minutes auto-off function and low battery indication.

Specifications

Item	Specifications
1310nm upstream measurement	
Pass zone (nm)	1260~1360
Isolation @1490/1550nm(dB)	>40
Measurement Range (dBm)	-40~+10
1490nm downstream measurement	
Pass zone (nm)	1470~1505
Isolation @1550nm(dB)	>30
Isolation @1310nm(dB)	>40
Measurement Range (dBm)	-40~+10
1550nm downstream measurement	
Pass zone (nm)	1535~1570
Isolation @1490nm(dB)	>40
Isolation @1310nm(dB)	>40
Measurement Range (dBm)	-40~+20
Measurement Accuracy	
Connatural Uncertainty (dB)	±0.5
Linearity (dB)	±0.1
Passing through insertion Loss (dB)	<1.5
General Information	
Display	Graphic display, Resolution is : 128*64
Measurement Unit	DBm, dB, mW, and uW
Resolution	0.01dB
Fiber Type	9/125um
Input Power Range	DC 6.5V~8.5V
Rechargeable Battery	7.4V
AC adaptor	8.4V
Operating Temperature	-10℃ ~ +60℃
Storage Temperature	-25℃ ~ +70℃
Dimensions	210X115X55



Ordering Information:

MODEL	INCLUDES
WY-2006	WY-2006 PON Power Meter, Protective Rubber Boot, Rechargeable battery, Power Supply Adaptor, Instruction Manual and Cotton Swabs, USB Cable, Rigid carrying case can be optional.

Handheld Adjustable Light Source-----WY-3007 Series

WY-3007 Handheld Adjustable Light Source is a newly designed fiber optic tester, it aims at fiber network installation, fiber network engineering acceptance and fiber network maintenance. Combined usage with WY-2007 handheld optical power meter, it offers a quick and accurate testing solution on both SM and MM fibers. The WY-3007 provides 1 to 4 wavelengths and output power can be adjustable on customer requests. Also the WY-3007 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	WY-3007
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°C)	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(°C)	-10~+60
Storage Temperature(°C)	-25~+70
Outline size (mm) /weight	180*90*45(250g)

Standard Package

MODEL	INCLUDES
All WY-3007 Models	WY-3007 Optical Light Source, 3pcs 1.5V batteries, AC Adaptor, User Manual, Cotton swabs and Soft carrying case.

Optical Light Source-----WY-3005 Series

WY-3005 optical light source

Is a handheld optical light source. 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 WY-2005 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 and stable output wavelength
- Backlight LCD display supports night operation
- Low battery power indication



Applications

Maintenance in Telecom

Maintenance CATV

Test Lab of optical fibers

Other Fiber Optic Measurements

Specifications

Type	WY-3005
Wavelengths(nm)	Provides 1~6 Wavelengths according to needs.
Emitter Type	FP-LD,LED
Typical Output 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(°C)	-10~+60
Storage Temperature(°C)	-25~+70
Dimension(mm)	190X100X50
Weight(g)	370

Winyuan Recommendation

WY-3005 Handheld Light Source is designed for optimal use with **WY-2005** Optical Power Meter for measuring optical loss on both single mode and multimode fiber cable.

Standard Package

MODEL	INCLUDES
All WY-3005 Models	WY-3005 Optical Light Source, 3pcs 1.5V batteries, AC Adaptor, Instruction Manual, Cotton Tampon and Soft carrying case.

Optical Light Source-----WY-3003 Series

WY-3003 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 WY-2003 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



Applications

Maintenance in Telecom

Maintenance CATV

Test Lab of optical fibers

Other Fiber Optic Measurements

Specifications

Type	WY-3003			
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(°C)	-10~+60			
Storage Temperature(°C)	-25~+70			
Dimension(mm)	175x82x33			
Weight (g)	295			

Winyuan Recommendation

WY-3003 Handheld Light Source is designed for optimal use with WY-2003 Optical Power Meter for measuring optical loss on both single mode and multimode fiber cable.

Standard Packages

MODEL	INCLUDES
All WY-3003 Models	WY-3003 Optical Light Source, Protective Rubber Boot, 3pcs 1.5V batteries, Instruction Manual, Cotton Tampon and Soft carrying case.

Optical Light Source-----WY-3004 Series

WY-3004 advanced stability handheld optical light source

Is designed specially aim at users with high requirements. With features of durable structure, large LCD display with backlight and friendly operation interface, the WY-3004 advanced stability handheld optical light source provides a lot of convenience for your field work. High stability of output power and quite stable output wavelength, it is an ideal instrument for optical network installation, trouble shooting, maintenance and other optical fiber related systems.

Features

- Provides dual-wavelengths output and wavelengths can be optional according to customer's needs
- CW, 270Hz, 1KHz, 2KHz modulation frequency output
- High stability of the output power
- Stable output wavelength
- Backlight LCD display supports night operation
- Large LCD, easy operation



Applications

Maintenance in Telecom
Maintenance CATV
Test Lab of optical fibers
Other Fiber Optic Measurements

Specifications

Type	WY-3004	
Wavelengths(nm)	1310/1550	850/1300
Emitter Type	FP-LD	
Output Power(dBm)	-7~-6	
Spectral Width(nm)	≤10	
Output Stability	±0.05dB/15mins; ±0.1dB/ 8hours	
Modulation Frequencies	CW、2Hz、270Hz、1KHz、2KHz	
Optical Connector	FC/ PC	
Power Supply	Rechargeable battery + Power Supply Adaptor	
Battery operating time(hour)	15	
Operating Temperature(°C)	-10~+60	
Storage Temperature(°C)	-25~+70	
Dimension(mm)	210x115x55	
Weight (g)	515	

Winyuan Recommendation

WY-3004 Handheld Light Source is designed for optimal use with WY-2004 Intelligent Optical Power Meter for measuring optical loss on both single-mode and multimode fiber cable and aim at the high requirements of the users.

Standard Packages

MODEL	INCLUDES
All WY-3004 Models	WY-3004 Optical Light Source, Protective Rubber Boot, Rechargeable battery, Power Supply Adaptor, Instruction Manual and Cotton Tampon. Rigid hard carrying case can be optional.

Optical Light Source-----WY-3001 Series

WY-3001 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 WY-2001 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 WY-2001 mini power meter, it constitutes the smallest optical loss test kit, perfect for field testing



Applications

Maintenance in Telecom Maintenance CATV
Test Lab of optical fibers
Other Fiber Optic Measurements

Specifications

Type	WY-3001
Wavelengths(nm)	1310 or 1550
Emitter Type	FP-LD
Output 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(°C)	-10~+60
Storage Temperature(°C)	-25~+70
Dimension(mm)	115X60X20
Weight (g)	110
Winyuan Recommendation	
WY-3001 Handheld Light Source is designed for mini portfolio with WY-2001 Optical Power Meter for measuring optical loss on both single mode and multi mode fiber cable.	

Standard Packages

MODEL	INCLUDES
All WY-3001 Models	WY-3001 Optical Light Source, Alkaline battery, Instruction Manual, Cotton Tampon and Protective Holster.

Visual Fault Locator(VFL)-----WY-652

WY-652 Visual Fault Locator

A very economic visual fault locator adapts the 650nm wavelength 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	WY-652
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(°C)	-10~+60
Storage Temperature(°C)	-25~+70
Dimension(mm)	100X30X18
Weight (g)	60

Remark: Pen-type VFL can be provided!

Standard Packages

MODEL	INCLUDES
WY-652	WY-652 Visual Fault Locator, Alkaline battery, User Manual, Cotton swabs and Protective Holster.



Visual Fault Locator(VFL)-----WY-650

WY-650 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 WY-650 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
Test Lab of optical fibers
Other Fiber Optic Measurements



Specifications

Type	WY-650
Wavelengths(nm)	650±10nm
Fiber Model	SM,MM
Output Power	1mw
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(°C)	-10~+60
Storage Temperature(°C)	-25~+70
Dimension(mm)	100X50X25
Weight (g)	50

Standard Packages

MODEL	INCLUDES
WY-650	WY-650 Visual Fault Locator, Alkaline battery, Instruction Manual, Cotton Tampon and Protective Holster.

Pen-Type Visual Fault Locator(VFL)-----WY-651

The WY-651 Pen type 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) adapter 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

Specifications

Type	WY-651 Pen-type Visual Fault Locator
Central Wavelength	650nm ± 10nm
Emitter Type	FP-LD
Output Power	1mw, 3mw, 10mw can be optional on customer request
Optical Connector	2.5mm universal connector For 1.25mm connectors, FC (Male)-LC (Female) adapter can be provided 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@5mw ≥30hour 650nm@10mw ≥15hour Test with Panasonic LR6 AA ALKALINE battery
Operating Temperature	-10~+45 (°C)
Storage Temperature	-40~+70 (°C)
Dimension (mm)	∅ 15X180
Weight	120g(Without battery)



Standard Packages

MODEL	INCLUDES
WY-651	Main unit, 2pcs Alkaline battery, Instruction Manual, Cotton swabs and Nylon Soft Carrying case.

Optical Multi-meter-----WY-4002 Series

WY-4002 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(WY-2004)
- Includes all the outstanding functions of handheld stable light source(WY-3004)
- 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 WY-4002

Applications

Maintenance in Telecom
Maintenance CATV
Test Lab of optical fibers
Other Fiber Optic Measurements



Specifications

Type	WY-4002A	WY-4002B
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	
Resolution(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)	
Output 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(°C)	-10~+60	
Storage Temperature(°C)	-25~+70	
Dimension(mm)	210x115x55	
Weight (g)	540	

Standard Packages

MODEL	INCLUDES
WY-4002 Models	WY-4002 Multi-meter Protective Rubber Rechargeable battery Power Supply Adaptor Software Disk Data upload Cable RS232 Instruction Manual Cotton Tampon Rigid hard carrying case can be optional

Optical Multi-meter-----WY-4001 Series

WY-4001 Handheld Optical Multi Meter

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 (WY-2002)
- Includes all the outstanding functions of the handheld stable light source(WY-3002)
- Perfect combination to make your fiber measurements more convenient.
- Different light sources and power meters can be built into WY-4001

Applications

Maintenance in Telecom

Maintenance CATV

Test Lab of optical fibers

Other Fiber Optic Measurements



Specifications

Type	WY-4001A	WY-4001B	WY-4001C	WY-4001D
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			
Resolution(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)			
Output 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(°C)	-10~+60			
Storage Temperature(°C)	-25~+70			
Dimension(mm)	180X85X30			
Weight (g)	340			

Standard Packages

MODEL	INCLUDES
All WY-4001 Models	WY-4001 Optical Multi-meter, Protective Rubber Boot, Rechargeable battery, Power Supply Adaptor, Instruction Manual and Cotton Tampon.

Optical Variable Attenuator (OVA)-----WY-6001

The **WY-6001 handheld 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, there, therefore WY-6001 can be used in the digital system of communication devices (such as: PDH, SDH) and also in the system of adopting analog modulation (CATV)

Application

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

Features

- stepwise attenuating by circum gyrated dial: attenuating step 0.05dB
- Provide with the function of displaying dB and dBm attenuating value
- Alternative function of 10 minutes Auto-off without 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



Specification

Type	WY-6001
Attenuating wavelength Range	1260~1650nm
Fiber Model	9/125um SM
Optical Connector	FC/PC (FC/APC, SC/PC, SC/APC optional)
Calibrated wavelengths	1310/1490/1550/1625nm
Measurement Range	2.5~60dB
Resolution	0.05dB
Minimize Insertion Loss	<2.5dB
Linearity	±0.5dB
Repeating	±0.2dB
Attenuating Accuracy	±0.8dB
Return Loss	>35dB (typical value40dB)
Max input	+20dBm
Displaying type	lattice 128*64 black and white, white back ground light
Rechargeable batteries	7.4V
Power supply adaptor	7~8.5V
Operation temperature	0~40℃
Storage temperature	-10~60℃
humidity	0~85% (non- condensation)
Weight	450g

Standard Packages

MODEL	INCLUDES
WY-6001 all models	WY-6001 Optical Variable Attenuator, Rechargeable 7.4V battery, Charger, Power Adaptor 8.5V, Instruction Manual and Cotton tampon, Soft Carrying Case.

Optical Talk Set-----WY-5001

WY-5001 Optical 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 WY-5001 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

Test Lab of optical fibers

Other Fiber Optic Measurements



Specifications

Type	WY-5001
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(°C)	-10 ~ +60
Storage Temperature(°C)	-25 ~ +70
Dimension(mm)	215X115X55
Weight(g)	520

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

Standard Packages

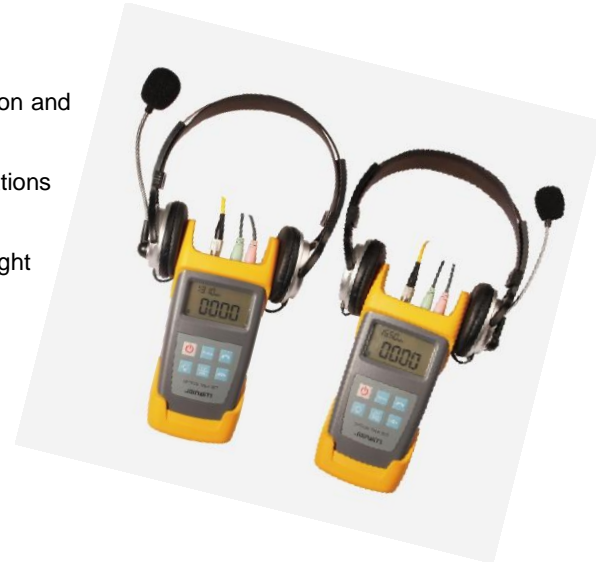
MODEL	INCLUDES
WY-5001	WY-5001 Optical Talk Set(pair), Protective Rubber Boot, Headset, Rechargeable battery, Power Supply Adaptor, Instruction Manual, Cotton Tampon and soft carrying case.

Optical Talk Set-----WY-5002

WY-5002 Optical 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 WY-5002 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	WY-5002
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(°C)	-10 ~ +60
Storage Temperature(°C)	-25 ~ +70
Dimension(mm)	215X115X55
Weight(g)	520

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

Standard Packages

MODEL	INCLUDES
WY-5002	WY-5002 Optical Talk Set (pair), Protective Rubber Boot, Headset, Rechargeable battery, Power Supply Adaptor, User Manual, Cotton swabs and soft carrying case.

Optical Fiber Identifier (OFI)-----WY-9001

WY-9001 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 WY-9001 optical fiber identifier also recognizes the modulation 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, and Lower power indication
- Displays the relative core power
- More accurate test with Sunshade
- Easy-to-replace adaptors
- Durable metal housing and quality construction



Specifications

Type	WY-9001	
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	
Single 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(°C)	-10—+60	
Storage Temperature(°C)	-25—+70	
Dimension (mm)	196X30.5X27	
Weight (g)	200	

Standard Packages

MODEL	INCLUDES
WY-9001	WY-9001 Optical Fiber Identifier, 4pcs adapter heads, Alkaline battery, Instruction Manual, Cotton Tampon and Soft Carrying case.

Optical Cable Fault Locator (Fiber Ranger) ----WY-7002

WY-7002 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 WY-7002 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.
- **WY-7002 Fiber Ranger is ideal to be used in FTTx network installation and maintenance.**

Specifications

Model		WY-7002
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 (-3) *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°C
Storage Temperature		-10~60°C
Humidity		0~85% (Non-condensation)
Dimensions		190*100*50mm
Weight (g)		450

Standard Packages

MODEL	INCLUDES
WY-7002	WY-7002 Fiber Ranger, 3pcs 1.5V batteries, User Manual, Cotton swabs and Soft carrying case.

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 Winyuan 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 adaptors 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!