



USER'S GUIDE

Hand-held optical measuring instrument

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WL-M Series OPM



WL-M Series Optical Power Meter is a kind of OPM that can measure six different wavelengths. It is suitable for acceptance of optical cable engineering, maintenance and inspection of optical fiber network. Handheld design, light weight, small size, long standby time, simple operation.

Main Features:

- Universal optical connector, supporting FC/SC/ST fiber connector;
- Multiple wavelength measurement: 850 nm / 1300 nm /1310 nm / 1490 nm / 1550 nm /1625 nm (can be customized to other wavelengths);
- Color LCD screen, suitable for a variety of light environment;
- Power measurement range: -70~+10dBm or -50~+26dBm (Alternative);
- Reference value can be set to confirm threshold value;
- Classic soft rubberized integrated shell, more shockproof.

Technical parameter:

Model	WL-M1	WL-M2
Wavelength range (nm)	800~1700	
Probe type	InGaAs	
Detection range	Φ 0.3mm	
Optical port	2.5mm universal connector + FC or SC	
Power measurement range (dBm)	-70~+10	-50~+26
Uncertainty	±5%	
Standard wavelength (nm)	850、1300、1310、1490、1550、1625	
Display resolution	0.01 dBm	
Working temperature (°C)	-10~+60	
Storage temperature (°C)	-25~+70	
Automatic shutdown time (min)	10	
Power supply	3 AA batteries (optional rechargeable battery)	
Battery continuous working time (h)	25 (3x1500mAh)	
Dimensions (mm)	76 * 177.5*40	
Power supply	5V2A ①	
Weight (KG)	0.275②	

Note: ①When the rechargeable battery is selected, the accessory contains a 5V2A power adapter.
②Weight without battery.

WL-RM Series OPM+VFL



WL-RM series is an all-in-one machine with power meter and visual fault locator. The OPM can measure six different wavelengths, and the VFL can choose 1/5/10/20mW. It is suitable for acceptance of optical fiber engineering, fiber network maintenance and testing. Hand-held design, light weight, small size, long standby time, simple operation.

Main Features:

- Universal optical connector, support FC/SC/ST fiber connector;
- Multi-wavelength measurement: 850nm/1300nm/1310nm/1490nm/1550nm/1625nm (other wavelengths can be customized);
- Color LCD screen, can be applied to a variety of light environment;
- Power measurement range: -70~+10dBm or -50~+26dBm (Alternative);
- The reference value can be set to confirm threshold value;
- VFL can choose 1/5/10/20mW;
- Classic soft rubberized integrated shell, more shockproof.

Technical parameter:

Model		WL-RM1	WL-RM2
OPM	Wavelength range (nm)	800~1700	
	Probe type	InGaAs	
	Detection range	Φ0.3mm	
	Optical port	2.5mm universal connector + FC or SC	
	Power measurement range (dBm)	-70~+10	-50~+26
	Uncertainty	±5%	
	Standard wavelength (nm)	850、1300、1310、1490、1550、1625	
	Display resolution	0.01dBm	
VFL	Output power (mW)	1/5/10/20mW	
	Optical port	2.5mm universal connector + FC or SC	
	Wavelength (nm)	650	
	Spectrum line width (20°C) (nm)	±10	
	Applicable fiber	SM、MM	
	Internal modulation	CW、2Hz	
General	Working temperature (°C)	-10~+60	
	Storage temperature (°C)	-25~+70	
	Automatic shutdown time (min)	10	
	Power supply	3 AA batteries (optional rechargeable battery)	
	Battery continuous working time (h)	14.5 (3x1500mAh)①	
	Dimensions (mm)	76* 177.5*40	
	Power supply	5V2A ②	
	Weight (KG)	0.275③	

Note: ①The continuous working time is when OPM and VFL are on at the same time.
 ②When rechargeable battery is selected, the accessory contains a 5V2A power adapter.
 ③Weight without battery.

WL-L Series OLS



WL-L Optical Light Source Series uses high-quality lasers with stable output, high sensitivity, multi-wavelength (applicable to single-mode or multi-mode wavelengths), and large dynamic range. Quick response after start-up, no need to warm up, stable output instantly. Color screen design, high definition, suitable for working in a variety of light environment. Handheld design, light weight, small size, long standby time, simple operation.

Main Features:

- Universal optical connector, support FC/SC/ST fiber connector;
- Multiple output wavelength selection: 850nm&1300nm; 1310nm&1550nm; 850nm、1300nm, 1310nm, 1550nm four wavelength output.
- Color LCD screen, can be applied to a variety of light environment;
- Quick response after start-up, no need to warm up, stable output instantly;
- Classic soft rubberized integrated shell, more shockproof.

Technical parameter:

Model	WL-L1	WL-L2	WL-L3
Operating wavelength (nm)	850/1300	1310/1550	850/1300/1310/1550
Laser type	FP-LD		
Output power (dBm)	-6~-7		
Modulation	270Hz, 1 KHz,2KHz		
Fiber category	SM , MM		
Optical port	2.5mm universal connector + FC or SC		
Working temperature (°C)	-10~+60		
Storage temperature (°C)	-25~+70		
Automatic shutdown time (min)	10		
Power supply	3 AA batteries (optional rechargeable battery)		
Battery continuous working time (h)	18.5 (3x1500mAh)		
Dimensions (mm)	76 * 177.5*40		
Power supply	5V2A ①		
Weight (KG)	0.275②		

Note: ①When rechargeable battery is selected, the accessory contains a 5V2A power adapter.
 ②Weight without battery.

WL-ML1 Series OPM+OLS



WL-ML1 series is an all-in-one machine with power meter and optical light source. The OPM can measure six different wavelengths. The OLS can choose 850nm & 1300nm; 1310nm & 1550nm; 850nm,1300nm, 1310nm,1550nm four wavelength output. It is suitable for optical cable project acceptance, optical fiber network maintenance and optical fiber inspection. Hand-held design, light weight, small size, long standby time, simple operation.

Main Features:

- Universal optical connector, support FC/SC/ST fiber connector;
- Multi-wavelength measurement:850nm/1300nm/1310nm/1490nm/1550nm/1625nm (other wavelengths can be customized);
- Color LCD screen, can be applied to a variety of light environment;
- Power measurement range: -70~+10dBm or -50~+26dBm (Alternative);
- The reference value can be set to confirm threshold value;
- OLS can choose multiple output wavelengths: 850nm & 1300nm; 1310nm & 1550nm; 850nm, 1300nm, 1310nm, 1550nm four wavelength output.
- Quick response after start-up, no need to warm up, stable output instantly;
- Classic soft rubberized integrated shell, more shockproof.

Technical parameter:

Model		WL-ML1	WL-ML2	WL-ML3	WL-ML1	WL-ML2	WL-ML3
OPM	Wavelength range (nm)	800~1700					
	Probe type	InGaAs					
	Detection range	Φ 0.3mm					
	Optical port	2.5mm universal connector + FC or SC					
	Power measurement range (dBm)	-70~+10			-50~+26		
	Display resolution	0.01dBm					
	Uncertainty	±5%					
	Standard wavelength (nm)	850、1300、1310、1490、1550、1625					
OLS	Operating wavelength (nm)	850/1300	1310/1550	850/1300/ 1310/1550	850/1300	1310/1550	850/1300/ 1310/1550
	Laser type	FP-LD					
	Output power (dBm)	-6~-7					
	Modulation	270Hz,1KHz,2KHz					
	Fiber category	SM、MM					
	Connector	2.5mm universal connector + FC or SC					
General	Working temperature (°C)	-10~+60					
	Storage temperature (°C)	-25~+70					
	Automatic shutdown time (min)	10					
	Power supply	3 AA batteries (optional rechargeable battery)					
	Battery continuous working time (h)	18.5 (3x1500mAh)①					
	Dimensions (mm)	76* 177.5*40					
	Power supply	5V2A ②					
	Weight (KG)	0.275③					

Note: ①The continuous working time is when OPM and OLS are on at the same time.
 ②When rechargeable battery is selected, the accessory contains a 5V2A power adapter.
 ③Weight without battery.

WL-RML1 Optic Multi-meter(OPM+VFL+OLS)

WL-RML1 Multi-meter is a three-in-one machine with optical power meter, visual fault locator and optical light source. The OPM can measure six different wavelengths, and accurately measure the optical power of each wavelength. VFL can choose 1/5/10/20mW.OLS adopts high-quality laser, with stable output, high sensitivity, multi-wavelength and large dynamic range. Quick response after start-up, no need to warm up, stable output instantly. Color screen design, high definition, suitable for working in a variety of light environment It is suitable for optical cable project acceptance, fiber network maintenance and testing. Hand-held design, light weight, small size, long standby time, simple operation.



Main Features:

- Three-in-one OPM, VFL, OLS, light and convenient;
- Multi-wavelength measurement:850nm/1300nm/1310nm/1490nm/1550nm/1625nm (other wavelengths can be customized);
- Universal optical connector, support FC/SC/ST fiber connector;
- Color LCD screen, can be applied to a variety of light environment;
- Intelligent timing automatic shutdown;
- OLS starts quickly, no need to warm up, and the output is stable;
- Classic soft rubberized integrated shell, more shockproof.

Technical parameter:

Model		WL-RM1L1	WL-RM1L2	WL-RM2L1	WL-RM2L2
OPM	Wavelength range (nm)	800~1700			
	Probe type	InGaAs			
	Detection range	Φ 0.3mm			
	Optical port	2.5mm universal connector + FC or SC			
	Power measurement range (dBm)	-70~+10		-50~+26	
	Display resolution	0.01dBm			
	Uncertainty	±5%			
	Standard wavelength (nm)	850、1300、1310、1490、1550、1625			
OLS	Operating wavelength (nm)	850/1300	1310/1550	850/1300	1310/1550
	Optical component	FP-LD			
	Output power (dBm)	-6~-7			
	Modulation	270Hz,1KHz,2KHz			
	Fiber category	SM、 MM			
	Connector	2.5mm universal connector + FC or SC			
VFL	Output power (mW)	1/5/10/20mW			
	Optical port	2.5mm universal connector + FC or SC			
	Wavelength (nm)	650			
	Spectrum line width (20°C) (nm)	±10			
	Applicable fiber	SM、 MM			
	Internal modulation	CW、 2Hz			
General	Working temperature (°C)	-10~+60			
	Storage temperature (°C)	-25~+70			
	Automatic shutdown time (min)	10			
	Power supply	3 AA batteries (optional rechargeable battery)			
	Battery continuous working time (h)	12.5 (3x1500mAh)①			
	Dimensions (mm)	76* 177.5*40			
	Power supply	5V2A ②			
	Weight (KG)	0.275③			

Note: ①The continuous working time is when OPM, VFL and OLS are on at the same time.
 ②When rechargeable battery is selected, the accessory contains a 5V2A power adapter.
 ③Weight without battery.



WL-PPM Series PON OPM

WL-PPM is a handheld instrument with integrated FTTx/PON optical power test, which is suitable for the acceptance, activation and maintenance of BPON, EPON and GPON. It can test the optical power of 1490nm, 1550nm and 1310nm at any position in the PON network at the same time, and has a threshold setting function to determine the optical power "pass/fail" in the optical fiber and improve the network judgment time. The WL-PPM0 series also integrates the functions of OPM or VFL. And it has multiple functions. Color screen design, high definition, suitable for working in a variety of light environment. Hand-held design, light weight, small size, long standby time, simple operation.

Main Features:

- PON OPM is combined with OPM or VFL, light and convenient;
- Simultaneous measurement of 131 Onm/1490nm/1550nm signal optical power anywhere on the BPON/EPON/GPON network;
- The PON OPM provides ten sets of threshold settings with pass and fail modes;
- The OPM can be tested at multiple wavelengths: 850nm/1300nm/1310nm/1490nm/1550nm/1625nm (other wavelengths can be customized);
- VFL can choose 1/5/10/20mW.
- Color LCD screen, can be applied to a variety of light environment;
- Intelligent timing automatic shutdown;
- Classic soft rubberized integrated shell, more shockproof.

Technical parameter:

Model		PON	PON+OPM	PON+OPM	PON+VFL
		WL-PPM	WL-PPM1	WL-PPM2	WL-PPR
PON OPM	Measuring wavelength(nm)	1310		1490	
	Bandpass (nm)	1200~1320		1480~1500	
	Optical isolation (dB)	>40@1490		>30@1310	
	Optical isolation (dB)	>40@1550		>40@1559	
	Measuring range (dBm)	-40~+10		-40~+10	
	Probe type	InGaAs			
	Optical port	FC/SC-PC/UPC/APC			
	Unit of measurement	dB/dBm/xW			
	Display resolution (dB)	0.01			
	Power uncertainty (dB)	±0.5			
	Linearity (dB)	±0.1			
	Channel insertion loss (dB)	<1.5			
	Data storage	999 groups			
	OPM	Wavelength range (nm)	800~1700		
Probe type		InGaAs			
Detection range		Φ0.3mm			
Optical port		2.5mm universal connector + FC or SC			
Power measurement range (dBm)		—	-70~+10	-50~+26	—
Display resolution		0.01dBm			
Uncertainty		±5%			
Standard wavelength (nm)		850、1300、1310、1490、1550、1625			
VFL	Output power (mW)	1/5/10/20mW			
	Optical port	2.5mm universal connector + FC or SC			
	Wavelength (nm)	650			
	Spectrum line width (20°C) (nm)	±10			
	Applicable fiber	SM、MM			
	Internal modulation	CW、2Hz			
General	Working temperature (°C)	-10~+60			
	Storage temperature (°C)	-25~+70			
	Automatic shutdown time (min)	10			
	Power supply	3 AA batteries (optional rechargeable battery)			
	Battery continuous working time (h)	14.5 (3x1500mAh)①			
	Dimensions (mm)	76* 177.5*40			
	Power supply	5V2A ②			
	Weight (KG)	0.275③			

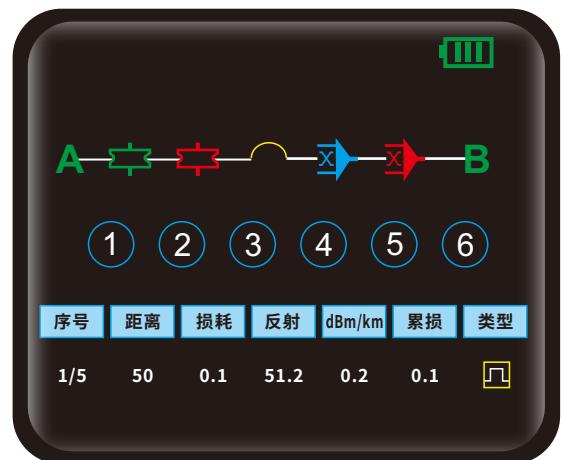
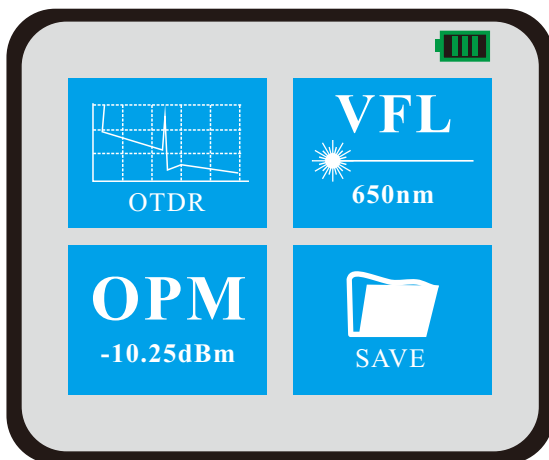
Note: ①The continuous working time is when either VFL or OPM, plus PON OPM are on at the same time.
 ②When rechargeable battery is selected, the accessory contains a 5V2A power adapter.
 ③Weight without battery.

WL-FP FTTH PON OTDR

This tester is developed and designed by adopting a single wavelength 1625nm, based on the full understanding of FTTH network. It replaces the PON OTDR with multi-wavelength in one (1310/1550/1625) on the market, reduces purchase and operation costs, completely meets the demand of rapid troubleshooting from end users during maintenance work. It is one user-friendly and professional FTTH tester.



- + One Instrumental PON OTDR
- + Independent Wavelength 1625 Design Concept
- + One-key Operation, No Complex Setting
- + Reducing Procurement and Maintenance Labor Costs
- + Real-time On Line Test、 One-key Mode Operation
- + Unnecessarily Cut Optical Signal in Transmission
- + Tested with 1:64 Splitter
- + PON OTDR+OPM+VFL 3-in-1
- + Swift and Convenient Data Save and Printing Out.



Technical parameter:

Model	WL-FP01	WL-FP02
Dynamic range	35dB	40dB
Passable splitter	1:32	1:64
Test Dead Zone	≤ 0.8m	
Dead Zone of Reflective Event	≤ 10m	
Dead Zone of Attenuation Event	≤ 30m	
Distance Resolution	1m	
Pulse Width	10ns-10us	
Distance Uncertainty	±(0.8m ± 0.01% * Test distance ±Resolution)	
Threshold of Loss	>0.8dB	
Resolution of Loss	0.1dB	
Connector	FC /PC	
OPM Supported Wavelength	(850,1300,1310,1490,1550,1625)nm	
VFL	10mw (standard)1mw, 5mw, 20mw (customized item)	
Storage Ability	100 items	
Display	2.4" TFT color screen	
Portal	Mini USB	
Power Supply	5# AA battery, Rechargeable battery, offer power supply with USBline	
Working Time	Standby>15 Hours . Test>8 Hours	
Dimension(LxWxH)	210x 120x 55 mm (including protective case)	
Weight	About 450g	
Storage Temperature	-20~+60 °C, < 90% RH	
Working Temperature	-10 ~+50 °C. < 90% RH	

WL-FP01 PON OTDR Application Scenario Diagram



PREVAIL



