Optical ULTIMODE OPM-2 Multi Meter User Manual

Contents

Optical

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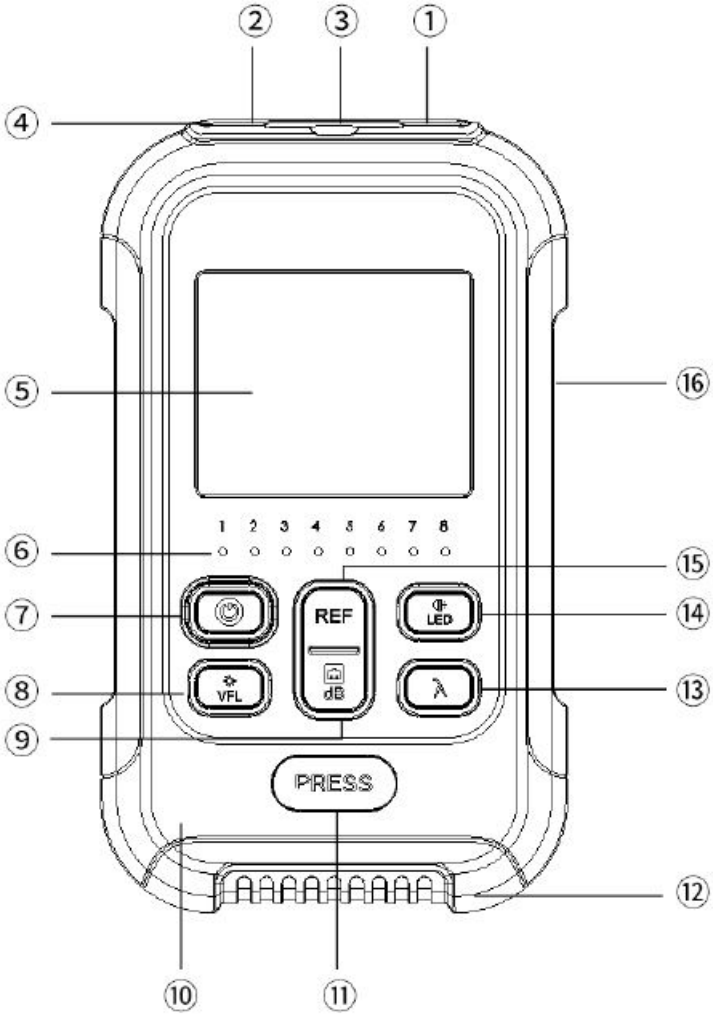
Appearanceand Ports



1. **OPM port:** connect to the fiber, test the optical power

2. **VFL port:** connect to the fiber, find the fault point in short distance
3. **LED light:** flashlight lighting
4. **Dust cover:** cover to protect the optical port when no testing
5. **Display screen:**display test results and other information
6. **Indicators:** cable tracking light
7. :Power key, turn on/off automatic shutdown function
8. **/VFL:** turn on/off back light, turn on/off VFL
9. **RJ45/dB:** turn on/off RJ45 sequence, switch absolute power display
10. **RJ45 network port:** RJ45 sequence/tracking test
11. **PRESS button:** press to take out the RJ45 sequence remote tester
12. **Remote tester:** RJ45 cable sequence test
13. **λ:** switch the test wavelength of the power meter
14. **LED key:** turn on/off flash light
15. **REF key:** set the current power as the reference power
16. **Micro USB:**connect the power bank to supply power or charge

Power on/off and automatic shutdown

After pressing briefly , the meter will turn on and start the automatic shutdown function. The default automatic shutdown time is 10 minutes. If you want to cancel the function, press and hold the power key for two seconds, and the icon dis appears, the automatic shutdown will be cancelled.

Set Reference Optical Power

After power on, enter the interface of OPM, press REF to set the current power as the reference power, switch the relative optical power test (insertion losstest) and absolute power test. In the relative power test mode, the insertion loss (dB) and the reference value is displayed simultaneously. Short press “dB” to switch linear power and absolute power display. The units of linear power, absolute power and relative power are W, dBm and dB respectively.
Pabs.p=10lglin.p/1mW
Prel.p=Pabs.p-Pref.p

Switch the Wavelength

In the interface of OPM, short press the λ key to switch the measurement wavelength. Ten different wavelengths can be selected: 1310nm, 1550nm, 1577nm, 1490nm, 1625nm, 1650nm, 850nm, 1270nm, 1300nm and 980nm. In order to ensure the accuracy of the test, the selected wavelength must be consistent with the measured optical signal.

RJ45 Cable Sequence and Analog Cable Tracking

In the test interface of OPM, long press the dB key to display the word “RJ45” on the screen. At this time, enter the RJ45 cable sequence test, connect one end of the network cable to the RJ45 port in the bottom, and connect the other end to the remote tester. Short press the dB key to exit. Long press the dB key again, “ ”displays on the upper left corner of the screen, enter the cable tracking mode, and short press the dB key to exit.

VFL and LED flashlight

After power on, long press the /VFL key to turn on the VFL, short press to flash and turn off.
Press the power button to control the flashlight turn on and off.

Calibration instructions
At the same time, press the LED+REF key to clear the user’s calibration value, and the screen will full display “-” to restore default value; press the LED+VFL to enter the calibration mode, and “Cal” will be displayed in the upper left corner of the screen. The following operations are only valid in the calibration mode.

Key	Function
/VFL	Increase 0.05dB
dB	Reduce 0.05dB
	Save
λ	Switch wavelength

Troubleshooting

Fault Hint	Possible Reasons	Settlement
LCD display is weak	Insufficient Power Supply	Replacement Battery
Boot-up cannot be displayed	Insufficient power supply or other	Reboot or replace batteries
Abnormal optical power values	Joint failure,dirty	Reconnect Connector and Clean Sensor

Specifications

Optical Power Meter		
Wavelength Range	800~1700nm	
Connector	Universal joint	
Detector Type	InGaAs	
Power Test Range	-70~+10dBm	
Uncertainty	±5	
Standard Wavelength	850/980/1270/1300/1310/1490/1550/1577/ 1625/1650nm	
Display Resolution	Linear display: 0.1%, Logarithmic display: 0.01dBm	
Recognizable Frequency	270Hz 300Hz 1kHz 2kHz	
VFL (optional)		
Wavelength	650nm±30nm	
Output Power	2mw/15mw/30mw	
Mode	CW/1Hz/2Hz	
Connector	Universal joint	
RJ45 Cable Sequence (standard), Cable Tracking (Optional)		
Test Distance	300m	
Others		

Power Supply	Lithium Battery, 3.7V/700mAh
Port	Micro USB
Battery Duration	≥120h (OPM)
Automatic Shutdown Time	10min
Working Temperature	-10℃~+50℃
Storage Temperature	-40℃~+70℃
Relative Humidity	0~95 No condensation
Dimension	120*70.5*27.5mm
Weight	130g

Standard Configuration
OPM host, OPM & VFL all-in-one machine (optional), certificate, operation manual, two AAA batteries, lithium batteries (optional), data line (optional), universal joint, packaging carton
Note: the ratedcharging voltage of lithium battery is 5V/1A.

Documents / Resources

	Optical ULTIMODE OPM-2 Multi Meter [pdf] User Manual ULTIMODE OPM-2 Multi Meter, ULTIMODE OPM-2, Multi Meter, Meter