



**FIS E-Series Power Meter
with Data Saving
User Manual**

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FIS E-Series Power Meter with Data Saving

1.0 Functions and Features

- Optical power test
- Wave ID — Auto wavelength identification & switching
- Frequency ID — Auto frequency identification
- 1000 records storage or download via USB cable
- USB communication port uploaded saves test results to PC
- Reference power level can be set up and stored
- Auto-off function

2.0 Specifications

Calibration Wavelength (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, 1K, 2K	
Date Storage Capacity	1000	
Communication Port	USB	
Standard Connector	SC/FC /2.5mm universal	
Alkaline battery	3*AA, 1.5V	
Power Adapter (V)	8.4	
Battery Operating time (h)	200 without backlight	
Operation Temperature (°C)	-10 ~ +60	
Storage Temperature (°C)	-25 ~ +70	
Dimension(mm)	200*90*50	
Weight(g)	285	

Remark: Battery operating time is based on the condition of the power off the backlight. If power on the backlight continuously, the operation time will be shorter.

3.0 Standard Configuration



No.	Name	Qty.
1	Optical Power Meter	1
2	User Manual	1
3	USB cable	1
4	Software CD	1
5	1.5V AA battery	3
6	Cotton Swabs	1
7	Carry Bag	1

4.0 Function



4.1 Front of the OPM





4.2 Functions

1. Screen - Displays the data, units, and wavelengths being used while the instrument is working.
2.  Power Key - ON/OFF the instrument
3. Power Saving setting: the unit will automatically shut off after 15 minutes of idle time, no matter the condition of the battery power supply or the AC power supply. Once you choose this setting, the "auto-off" will display on the left bottom of the screen. This power saving is the default setting. Every time you turn it on. It will enter into this mode. Short press the power key to turn off the auto-off mode.
4.  unit toggle key - Press this key to toggle between the absolute measurement(dBm), relative measurement(dB) and xW of the optical power.

mW, dBm conversion: $10 \log(\text{mW}) = (\text{dBm})$


5.  REF setting: This stores the current power value as the reference value which will be displayed on the top right of the LCD screen. It will compare the current power with the reference power and show the relative power value in dB.
6.  Saving/data-view key - Data-saving, OPM can save up to 1000 data files. Press this key, and the screen will display the data saving file number.

Tip: when saving a reading, double press the  to confirm the save.

7.  backlight control: turn on or turn off the backlight.
8.  Wavelength Selection/Wavelength identify - Short press this key to switch the wavelength and display it on the top left of the LCD screen, 1310nm is the default wavelength.

5.0 Operation Instruction



5.1 Turn ON/OFF

1. First, insert the battery or the A/C adapter; do not have any light source going into the meter, press  to turn on the tester.
2. When the tester is in standby, short press the power key to cancel or initiate the auto-off function. If auto-off function is selected,


the “Auto-off” will display on the left bottom of the screen. On the “Auto-off” status, the OPM will turn off 10 minutes automatically.

3. If you want to turn off the OPM, long press  about 2 seconds.



5.2 Output Power Measurement

1. Take off the dust cap; connect with the patch (reference) cord. Please confirm the connector and the ferrule of the patch cord is clean.
2. Turn on the OPM.
3. Select the wavelength. Short press , select the calibrated wavelength, notice that the selected wavelength must be the same with the laser source wavelength.
4. To change measurement units, press  to switch between the absolute measurement (dBm) and relative measurement (dB) and xW of the optical power.



5.3 Relative Value Measurement

Relative value measurement: Each wavelength can set a Ref value, Press , set the current value as the ref value, and automatically calculate out the relative value.

5.4 Data Processing

Data processing: This OPM can store up to 1000 data files. When saving, press  button, at the right top of the screen it will display the data saving number (ex: 0001, 0002, etc). Then repress  button again to confirm save. The saving number will disappear at the top right of the screen. For how to transfer the data to PC and view or delete the data please refer to the software CD.

5.5 Wavelength Automatic Identification

Wavelength Automatic Identification: Press the button  of the OPM till appear “---AU” at the right top of the screen; Press the  button of the OLS (light source), so it can relieve this function.

5.6 Frequency Detection

Frequency Detection: OPM can test the frequency of the OLS. If OLS output frequencies of 270Hz, 1KHz, 2KHz accordingly, OPM will detect the frequency and show it on the upper right of the LCD automatically.

6.0 General Maintenance

- Always keep the connector ports of your power meter clean.
- Do not use dirty optical fiber connectors/adaptors, otherwise, it will damage the interface of detector that will greatly affect the performance of the unit.
- Try to use only the adaptor supplied.
- Once not in use, make sure dust-proof cap is placed properly over the optical ports.
- Carefully plug in/out the fiber connectors/adapters to avoid scratches on the port of the power meter.
- Perform regular cleanings on the optical port of the power meter; please clean with cotton swabs supplied using alcohol properly.
- When using alcohol, always follow up with a dry cleaning to remove alcohol residue.

7.0 Troubleshooting

Problems	Reasons	Solutions
Faint display on the LCD screen	1. Power is off	1. Press key.
	2. The battery power is too low	2. Change the batteries
Inaccurate measurements	1. Optical connector is not clean.	1. Clean optical connectors
	2. weak fiber connection	2. Re-connect the fiber

8.0 Change Battery

If you find the battery is weak while operating it, please immediately turn the unit off and change a the batteries.



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