1. Introductions

Type A:

Measurement range: -70~+10dBm, calibrated wavelength: 850nm、1300nm、1310nm、1490nm、1550nm、1625nm

Type C:

Measurement range: -50~+26dBm, calibrated wavelength: 850nm、1300nm、1310nm、1490nm、1550nm、1625nm

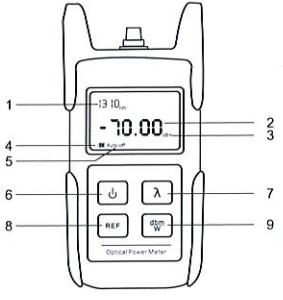
2. Features

- High measurement accuracy and display resolution
- Quick response and measurement: It can display fast-tracking and real-time measurement of optical power when output power changes
- Wide measurement range: It can provide 80dB of optical power measurement range
- Six calibrated wavelength: 850nm、1300nm、1310nm、1490nm、1550nm and 1625nm(Other wavelength can be provided according to customer's request)
- Provide absolute optical power measurement and relative power measurement.
- Real-time monitoring and displaying the battery level Warning notice is available when the battery is low
- Auto-off function
- Backlight LCD display
- AAA batteries which is more convenient to carry
- User self-calibration function

3. Specifications

Measurement range dBm	-70~+10 dBm	-50~+26 dBm
Wavelength range (nm)	800~1650	
Calibrated wavelength	850nm、1300nm、1310nm、1490nm、1550nm、1625nm (other wavelength will be on request)	
Detector	InGaAs	
Accuracy	<±3% (-10dBm、22℃)	
Resolution	Linearity: 0.1%, Non-linearity: 0.01dBm	
Working temperature	-10℃~+50℃	
Storage temperature	-20℃~+70℃	
Relative humidity	90% (+30℃)	
connector	Movable FC/PC SC/PC, (ST as Optional)	
Power supply	3pcs AAA batteries	
DC power supply	Optional accessory which require special order Support wide range power input work (AC 90-240)	
Working hours	>120 hours (without backlight)	
Weight(g)	128g	
Dimension(mm)	64mm*32mm*15mm	

4. Layout



OPTICAL POWER METER

1. Wavelength :

Display the wavelength, such as 850nm、1300nm、1310nm、1490nm、1550nm and 1625nm.

2. Power value:

- Display the current output power under absolute test mode
- Display the difference between the current output power and reference power under relative test mode

3. Unit: mW、uW、nW、dBm、dB.

4. Battery level : Indicate the current battery level. When the icon is blank, it means the power is too low, please change the batteries.

5. Auto-off : Activate the 10-minute auto off function

6. ON/OFF

7. Wavelength select

8. REF Relative power: Press REF for 2 seconds to start relative test

9. DBm/w: Absolute power

5. Function Keys

1)ON/OFF: Press ON/OFF to turn it on. And press it for 3 seconds to turn it off. Under power-on mode, press this key shortly to activate f deactivate the 10-minute auto off function. The default setting is auto-off function ON whenstart the meter. Operators can press ON/OFF shortly to close the auto-off function.

2)dBm/W: Press dBm/W to enter absolute measurement mode. Press it repeatly to switch the display power unit between W and dBm

3) λ : Switch the wavelength from 6 calibrated wavelengths, the current choice of wavelength will appears on the LCD

4) REF: Press REF key to enter relative measurement mode and it has 3 working modes:

A) Directly enter the relative measurement: In absolute measurement mode, press REF to enter the relative measurement. Now the REF value shows the previous saved power values.

B) Save the reference value : When enter the relative measurement mode, press REF for 2 seconds to save the current absolute power value as REF value and show the relative power value in dB unit

C) Enter the relative measurement mode and save current reference value: In the absolute measurement mode, pressREF for 2 seconds to enter the REF measurement mode and save the current value as REF value which will appears in Ref position.

Now the value in dB unit on the LCD and the vale means the difference value between the measurement value and REF value, meanwhile, the REF value will displays in the REF position.

5)Backlit :It is on when turning on the unit. It will turn off one minute later. Operators can press any key to make backlit for another one minute.

6. Operation

6.1 Turn on/off

- Press ON/OFF shortly to turn on the unit. Press ON/OFF for a few seconds to turn it off and press this key slightly to activate or deactivate the auto-off function.

6.2 Absolute power measurement

- Insert optical signal (Insert the pigtail properly), turn on the meter
- Choose the wavelength via λ key. If the tested wavelength is not exactly same to the one in the power meter, then choose a close one from the power meter. For example, 1300nm wavelength is near to 1310nm, we can choose 1310nm to substitue 1300nm.
- Press dBm/W to choose the display unit. The default wavelength is 1310nm and working mode is dBm.
- After the above steps, the LCD will show the test power value.

6.3 Relative power measurement

- Set the wavelength
- Press REF for 2 seconds to enter the relative measurement mode. Now LCD screen display 00.00dB
- Measurement: Insert the pigtail need to be tested and introduce another measurement light, now the current value shown in the LCD is the difference value between the tested signal and reference value.
- The reference value shown in the REF position
- Press dBm/W to review the current absolute power value. Press REF to review the current reference value.

6.4 User self-calibration function

During the operation, when operators need to calibrate the meter to be accordance with other meters. So our product offers operators self-calibration function, the following steps will tell you how to do:

- Press Power key & dBm key at the same time, the instrument goes into manual calibration mode (at this time the four row units are all displayed)
- Press λ key to choose the wavelength for calibration.
- Now connect it with a pigtail which we already know its power and press REF or dBm/W to increase or decrease the power value by 0.05d every time. Until the LCD display the pigtail's power (Or the difference gap less than 0.3db)
- Short press Power key to save calibration data.
- Report above operation for other wavelength.
- After recalibrate each wavelength, press Power key & REF key at the same time to exit calibration mode.

6.5 Auto off function

The auto off is on when turning on the meter. Press ON/OFF to activate or deactivate this function.

6.6 Replace battery

- If the battery level is very low, please turn off the unit immediately and replace the batteries
- Take out the batteries if not in use for a long period of time (like one month)
- NOTE: Do not charge the non-rechargeable battery, dangerous!

7. Maintenance

1)Keep all optical connectors and surfaces free from oil, dirt or other contamination to ensure proper operation.
2)Keep using the same type of connector
3)Please cover the dust cap when not in use to keep the connector clean.
4)Carefully plug in or out the adapter
5)Regularly clean the connector.
6)Take out the battery when not in use for a period of time.

8. Trouble-Shootings

Problem	Reason	Solution
Faint LCD screen	Lower power	Replace battery
No backlight	Lower power	Replace battery
No display when turning on	Lower power/other	Turn on again or replace battery
Fail to turn on	Lower power	Replace battery
No changing on LCD screen	Lower power	Replace battery
In sensitive LCD screen	Dirty or polluted connector	Use the correct connector and clean it.

Warranty Period: 12 months from the purchasing date

Warranty clause:

1. Under the warranty, we would repair the problems caused under the normal operation free of charge.
Note: remember to show us the warranty card when repair

2. For the following situation, we have to charge certain cost:
1)Out of the warranty;
2)Fail to provide the warranty card
3)Alter and omit the warranty card
4)Wrong operation including the problem caused by human actors, abnormal working environment and so on.
5)Problems or damages are not caused by the products quality
6)Do not operate it according to this manual.

3. For the following situation, we do not repair it
1)Damaged seal label.
2)Take apart it without permission
3)Products from other manufacture

Packing List

(1) Optical Power Meter 1pc
(2) Soft case 1pc
(3) User Manual 1pc
(4) Battery(AAA, transportation permit) 3pcs
(5) Quality Certificate 1pc

OPTICAL POWER METER