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WARNING

Security rules:

To protect the instrument from being damaged, do not use under the high temperature, high pressure, wet or other prohibited condition.

Do not personally take apart or repair the instrument.

Quality assurance:

We assure that each unit meets the declared specification.

Notice:

Technical Parameter is subject to change without notice.

Handheld Power Meter manual SD 502



1 Model

A : -70 ~+10dBm

B : -50 ~+26dBm

2 Overview

This series of power meter features multi-functions, low power, compact size. They are widely used in the installation and maintenance of LAN, FDDI, WAN, FTTH, CATV areas. They can also be used for the absolute and relative measurement of optical power.

3 Features

- ✧ High measurement accuracy and display
 - ✧ Quick response and measurement: when power changing, it can track and real-time display the output power
 - ✧ Wide measurement range: 80dB range
 - ✧ Five calibrated wavelength: 850nm、1300nm、1310nm、1490nm、1550nm(other wavelength could be provided on request)
 - ✧ Absolute and relative measurement
 - ✧ Real-time monitoring and displaying the battery level
 - ✧ Auto-off function after 10 minutes idle time
 - ✧ Backlight function: turn it on/off. The unit would automatically turn off the backlight 1
-

minute later.

- ✧ Rechargeable battery and charger.
- ✧ Support AC and DC working mode

4 Specification

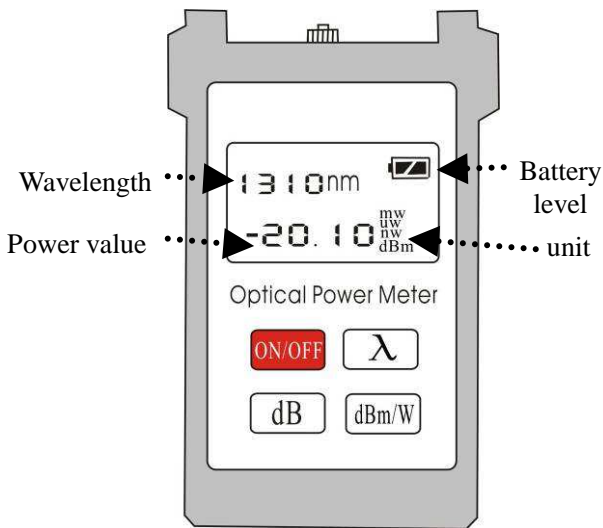
Measurement range (dBm)	-70~+10, -50~+26
Wavelength range (nm)	800~1650
Calibrated wavelength	850nm、980nm、1310nm、 1490nm、1550nm、1625nm (Customs-made)
Detector	InGaAs
Accuracy	$< \pm 3\%$ (-10dBm、22°C)
Resolution	0.01
Work temperature	-10°C~+60°C
Storage temperature	-25°C~+70°C
Relative humidity	90% (+30°C)
Auto-off time	10min
connector	Movable FC/PC, optional ST、 SC
Power supply	9V battery or AC adapter
AC adapter	100-240V,50/60Hz
Working hours	>40(h)
weight(g)	300g
dimension(mm)	140×75×38

5 standard Accessories

- 1) power meter.....1
- 2) pouch1
- 3) manual1
- 4) 9V battery(transportation permit)1
- 5) certificate1

6 Keypad

6.1 Appearance



6.2 LCD screen

1) Power Value

it can display the current output power under absolute test mode.

And it can display the difference between the current output power and reference power under the relative test mode

2) Unit

mW、uW、nW、dBm、dB;

3) Wavelength

display and identify the wavelength, like 1625nm、1550nm、1490nm、1310nm、1300nm、980nm、850nm;

4) Relative test

Press **dB** to start relative test

5) Power level

Real-time indicate the battery level. When empty, it indicates the power is too low

6.3 Function

- ✧ **ON/OFF** key: Press **ON/OFF** to turn on/off the unit or backlight.
- ✧ **W/dBm** key: press **W/dBm** key to switch the test unit
- ✧ **λ** key: press **λ** key to switch the wavelength from 1625nm、1550nm、1490nm、1310nm、1300nm and 850nm.

- ✧ **dB** key: press this key to switch the test mode from absolute test to relative test and set the reference value.
- ✧ **Relative test:** press **dB** key once to enter relative test mode and the power unit is **dB** which is a difference between the test value and reference value. Press **W/dBm** to exit from relative test mode and go back to test absolute.

7 Operation

7.1 Turn **on/off**

Under power-off mode, Press this to turn on the unit.

Under power-on mode, press this key shortly to choose backlight; press it for 2 seconds to turn off the unit.

7.2 Absolute power test

- ✧ Connect the power meter with optical signal
- ✧ Turn on the power meter
- ✧ Choose the correct 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.
- ✧ Press **dBm/W** to choose the display unit
- ✧ Then the power meter will show the test power value.

7.3 Relative power test

- ✧ Set wavelength
- ✧ Press **dB** to enter the relative test mode, now LCD screen display 00.00dB
- ✧ Connect it to the test signal.
- ✧ Then the LCD will show the relative value (unit: dB)

7.4 Replace battery

If the battery level is very low, please turn off the unit immediately and replace the batteries

Please screw off the connector when taking off the rubber boot and screw them tightly on after the replacement

NOTE:

Do not charge the non-rechargeable battery, dangerous!

The AC adapter power is isolated from the battery, not recharge the battery, so it's safe.

8 Maintenance

- ✧ Keep all optical connectors and surfaces free from oil, dirt or other contamination to ensure proper operation.
- ✧ Keep using the same type of connector
- ✧ Please cover the dust cap when not in use to keep the connector clean.
- ✧ Carefully plug in or out the adapter
- ✧ Regularly clean the connector.

- ✧ Take out the battery when not in use for a period of time.

9 Problems

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

10 Warranty notice

Warranty Period:

It is within 18 months from the date of purchase

Warranty clause:

一、 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

二、 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.

三、 For the following situation, we do not repair it

- 1) Damaged seal label.
- 2) Take apart it without our agreement
- 3) Other companies products

Quality certificate

Product name: **Handheld optical power meter**

Product model:

Serial number:

Date of production:

Inspection :

Warranty card

Date of purchase:

Customer name:

Customer address:

Customer phone:

Distributor name:

Distributor phone;

Posted back to: