

Y9 SERIES Instruction manual



Overview

The handheld optical power meter and red light integrated machine series products are mainly used for continuous optical signal power measurement and fiber optic line on/off testing. It is controlled by a single-chip microprocessor with complete functions. Widely used in optical cable construction and maintenance, optical fiber communications, optical cable sensing, optical CAT and other fields. The design of the fuselage conforms to the requirements of ergonomics and adopts advanced cold plastic molding technology, which is beautiful and durable. The optical power meter red light pen integrated machine uses a built-in detector and laser, which can make it well protected. The optical power meter/all-in-one has a compact shape, automatic switch function, Two red light modes, Wavelength memory function, Fiber Optic Job Identification, Can be manually calibrated, High red power, Wide test range, Support Lighting.

Product Features

1. Support Lighting
2. Supports automatic shutdown
3. Support backlight switch
4. Support the memory wavelength function

5. Supports operating frequency identification
6. Support the user's own calibration
7. Support for SC, FC, and ST interfaces
8. Support charge bank, computer and other external power supply
9. Support for linear (nW) and non-linear indicators (dB)
10. Support red light and flashing (optional)
11. Rechargeable battery life of 20 hours (optional)
12. Support for mobile phone operation (optional)

Specification parameter

Wavelength range	800~1700
Detector type	InGaAs
Power measurement range	-70~+6, -70~+10, -50~+26(optional)
Uncertainty	±5%
Standard wavelength (nm)	850, 980, 1270, 1300, 1310, 1490, 1550, 1577, 1625
Display resolution	Linear display: 0.1% Logarithmic display: 0.01dBm
VFL wavelength (nm)	650
VFL power (mW)	5, 15, 20, 30 (Optional)
Frequency identification (Hz)	270, 1000, 2000
Number of saved data (PCS)	100
Input voltage (V)	3~5
Working temperature (°C)	-10~+60

Storage temperature (°C)	-25~+70
Automatic shutdown time (min)	10
Continuous working time of battery (h)	20
Instrument size (mm)	L142*W73*T31MM
Power Supply	5 batteries * 2 (optional), Rechargeable lithium battery (optional), External Inputs
Net weight of meter (g)	175~206g

Data is for reference only, please refer to the real thing

Note:

1. Wavelength range: Specify a standard working wavelength input range from input min to input max. In this wavelength range, the optical power meter is designed to work under the specified indicators.
2. Power meter measurement range: the range of the maximum power measured according to the specified indicators.
3. Uncertainty: the error between the test result of a certain optical power and the standard optical power measurement.

Key Description

Key-press	Functional Description
	Press this button for 1 second to turn on and 2 seconds to turn off. (10-minute auto-off function is enabled by default)
	Short press after power on, turn off → turn on the 10-minute auto power off function. The display countdown goes out accordingly → 10:00 is displayed 10:00 .

Key-press	Functional Description
	Short press wavelength switching, multiple wavelength cycle switching, Sequential 850nm, 980nm, 1270nm, 1300nm, 1310nm, 1490nm, 1550nm, 1577nm, 1625nm, Automatically saves the last test wavelength used when the power is turned off.
	Short press power meter unit (nW, dB) switching Long press to enter/exit to view stored data , "VFL" key to upturn, "RJ45" flipped down. "VFL" key + "RJ45" to enter/exit the Clear Stored Data page. Press the "Power" key briefly to confirm clearing the stored data and return to the main page.
	1. Short press to zero the light decay db value at this point. 2. Long press to enter user calibration mode (See instruction manual for calibration method)

Key-press	Functional Description
	OPM Single Optical Power Meter Models: Short press to turn on/off the LED light / . OPM+VFL all-in-one models: 1. Short press to turn on → flashing → off 650 red light → . 2. Long press for 1.5 seconds to turn on/off LED lighting (icons corresponding to the display /).
	Short press the RJ45 pair to test and enter the display page. The display is refreshed once for each short press on the RJ45 test. Any key exits this screen. Long press to save the OPM real-time data and display the save directory.
	Buzzer operation Short press on the key combination. Turn off/on buzzer

Frequency auto-recognition function.

When the machine receives light attenuation with

frequency, the upper right corner automatically displays the 270Hz, 1000Hz, 2000Hz.

Charging function:

USB+5V charging port as standard. The charging process power marker runs the horse, the charging end power marker stops running the horse. (Charging forced on after color screen shutdown, running light charging display.)

Description of LCD display

The measured power values are displayed as dBm, nW.
Displays wavelengths of 9 types and current operating status, etc.

Description of calibration method

Press and hold the "REF" key to enter user calibration mode: At this point, short press the "VFL" key +0.05dbm. Short press on "RJ45" key -0.05dbm. Short press the in key to switch between different wavelengths for calibration. Short press the power button to save and exit the calibration mode after user calibration.

"VFL+RJ45" keys to enter/exit Restore Factory Settings. Short press the Power button to confirm the restoration of factory settings and return to the main page.

Relative power and absolute power measurement

1. Absolute power

If the current measurement wavelength is 1310nm and the measured light is connected, the current value displayed on the

screen includes the linear value and the nonlinear value of the absolute optical power.

2. Relative power

After setting the wavelength, in the absolute optical power mode, connect to the measuring light and measure the current power value. At this time, press the REF key again, and the current power value will become the single pre-reference value (in dBm). At this time, the current absolute power value is displayed and the current relative optical power value is dB. When another measuring light is connected, the absolute and relative optical power values of the current measuring light are displayed.

Standard configuration

Host machine, product warranty card, certificate of conformity, instructions for use. 2 x 5 dry cell batteries (optional), lithium battery (optional). USB charging cable (optional).

Daily care and maintenance

1. Please always keep the sensor end face clean to be grease-free and pollution-free. Do not use unclean and non-standard adapter connectors, and do not insert end faces with poorly polished surfaces, otherwise it will damage the sensor end face and cause errors in the test.
2. Stick to one adapter whenever possible.
3. Once not in use, please immediately put on the dust cap to protect the end face clean and prevent long-term exposure to the air causing adhesion of dust to cause measurement errors.
4. Please plug and unplug the optical adapter connector carefully to avoid scratches on the port.
5. Clean the surface of the sensor regularly. When cleaning the surface of the sensor, please use a special cleaning cotton swab to wipe gently in the circumferential direction.

Quality Guarantee

1. Within twelve natural months after the user receives the goods, our company will promise the quality and workmanship of its products. The warranty period is within twelve months from the date of receipt. When the purchased product is found to have quality problems, our company will deal with or replace them accordingly, but under any circumstances, our responsibility will not exceed the purchase value of the product.
2. If there is a problem during the use of the instrument, it cannot be solved according to the common fault prompt scheme. The user is not allowed to open the case without authorization, please contact our company.
3. For product defects caused by faults, our company is responsible for free maintenance or replacement of products.

Note: this guarantee is only applicable to the normal use of the instrument, and there is no damage or normal use, due to product quality or material defects caused by failure, our company is responsible for free repair or replacement. Our company has the right to refuse the warranty for accidents, improper use, and unauthorized start-up maintenance.

⚠ The version is subject to change without notice

Version: V1.0h