Directions for use (English Edition)

Introduction

Handheld light power meter series, Light power meter red light pen integral machine series products are mainly used for continuous optical signal power measurement and optical fiber line breaking test. It is controlled with single-chip microprocessor that is full function. It is widely use in construction and maintenance of optical cable, optical communication and optical sensor and optical CATV such areas. The design of the machine meets the requirement of ergonomics. It adopts advanced cold mold technology which is beautiful and endurable. The built-in detectors and lasers allow the product to be well protected. Light power meter has a small shape, optional switch, background light display and automatic shutdown function, wavelength memory function, manual calibration, optical fiber work identification, wide testing range. Light power meter red pen integration machine has automatic shutdown function, two red light mode, three kinds of backlight mode, wavelength memory function, optical fiber work identification, manual calibration, red light power, wide testing range.

Note: the version of the instruction is subject to change without notice.

Product Character

1、Support linear indicators (mW) and non-linear indicators (dB) showing at the same time.

2、Support auto power-off

3、Support backlight ON/OFF

4、Support self calibration by user himself

5、Support SC, FC interface, ST interface (optional)

6、Charging unplugged working time 48 hours (optional)

7、Support portable battery / computer power supply (optional)

8、Support wavelength memory function

9、Support optical fiber work identification

10、Support red constant and flashing

（1 to 9 for the light power meter and integration machine series products, a total of characteristics, Features of 10 integration machine series.）

Technology Index

Wavelength range	800～1700
Connector	FC/SC/ST（ST optional ）
Type of Detector	InGaAs
Power Measurement Range	-70~+3 or -50~+20
Uncertainty	±5%
Standard Wavelength （nm）	850、980、1300、1310、1490、1550、1625
Display Resolution	Linear indication：0.1% ，Logarithmic indication：0.01dBm
Working wavelength of red light（integration machine series）	650nm
Red power（integration machine series）	1MW、5MW、10MW、20MW、30MW（optional ）
Working Temperature (℃)	-10～+60
Storage Temperature (℃)	-25～+70
Auto Power-off Time (min)	10

Battery Working Time (h)	≥48
Size (mm)	190 *100 *48或165*75*28
Power	No. 5 battery *3 or rechargeable lithium battery
Weight (g)	300/400

Note:

1、Range of wavelength: a standard working wavelength that we specified: 入 min-入 max, the optical power meter within this range can work well with all indicators meeting requirements.

2、Power measurement range:the maximum power that the meter can measure as per required indicators.

3、Uncertainty: the error between the test results and standard test results over a standard optical power .

Light power meter series products button description

1、Turn on / off

Press the button to start within a second, then press the button to turn off the power.

2、AUTO/OFF

Press this key can close or open the auto shutdown function; LCD top left corner can show the hint at the same time

3、ZERO

Press this key to zero the optical power meter , set the current test result or set it as a reference value to measure the relative power, and the display will display the set dBm value.

4、LIGHT

Press the key can close or open background light; LCD top left corner can show the hint at the same time

5、dB

Change data display unit. The dBm, dB and nW units can be selected sequentially, and the test data will be displayed with corresponding results. The conversion relation of nW and dBm is 10 log (nW) =0 (dBm).

6、λ

7 different wavelength optional (850nm、980nm、1300nm、1310nm、1490nm、1550nm、1625nm) LCD showing at the same time.

7、Optical fiber work identification function

Press the "ZERO" + "dB" key to turn on the fiber work, identify the optical fiber operating frequency, and then press the combination key to turn off.

8、LCD Monitoring Explanation

The measured power values are displayed in the form of dB, dBm, mW, uW and nW. The display wavelength is 7 and the current operating state is the same.

9、Explanation of Calibration Function

At the same time press the "LIGHT" + "λ" button, then enter the user mode, the lower right corner of the screen shows the letter "CAL", the following function is in the combination button pressed after effective.

Function	Push-button	Comments on a form
Increase 0.05dB	dB	*1.01158
Reduce 0.05dB	LIGHT	*0.99855
Preservation	ZERO	Press the boot button (Store to flash)
Switching wavelength	λ	
Restore factory settings	λ+ZERO	Display "FAC", The default value is also read into the array.

Integration machine series products button description

1、Turn on / off

Press and hold for a second to start, and in the boot state, press the button long enough to turn off the machine. After the boot, the default to open automatic shutdown function (10min), the boot press the key, LCD left upper power mark disappeared, then turn off the automatic shutdown function.

2、UNIT

Change data display unit. The dBm, dB and nW units can be selected sequentially, and the test data will be displayed with corresponding results. The conversion relation of nW and dBm is 10 log (nW) =0 (dBm).

3、REF

Press this key to zero the optical power meter , set the current test result or set it as a reference value to measure the relative power, and the display will display the set dBm value.

4、入

7 different wavelength optional (850nm、980nm、1300nm、1310nm、1490nm、1550nm、1625nm) LCD showing at the same time.

5、LIGHT

Turn on or off the red light, press and hold the key to turn on or off the red light function. When opened, the lower right of the LCD displays 650 at the same time.

6、GLINT

When the red light is turned on, press the button to flash red, and then press the button to turn off the red flashing function.

7、Optical fiber work identification function

Press the "ZERO" + "dB" key to turn on the fiber work, identify the optical fiber operating frequency, and then press the combination key to turn off.

8、LCD Monitoring Explanation

The measured power values are displayed in the form of dB, dBm, mW, uW and nW. The display wavelength is 7 and the current operating state is the same.

9、Background light switch

LCD POWER	GLINT+LIGHT	display ☀ , Switch backlight tips

10、Explanation of Calibration Function

At the same time press "λ" + "REF" + "UNIT" button, then enter the user mode, the lower right corner of the screen shows the letter "CAL", the following function is in the combination button pressed after effective.

Function	Push-button	Comments on a form
Increase 0.05dB	REF	*1.01158
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Preservation	Boot key	Press the boot button（Store to flash）
Switching wavelength	λ	
Restore factory settings	REF+UNIT	Display "FAC", The default value is also read into the array.

Measurement of Relative Power and Absolute Power

1、Absolute power

　If the 1310nm wavelength is chosen, the screen will show the present value, including linear value of absolute light power and non-linear value when the tested light is connected.

2、Relative Power

　When the wavelength is set, in the mode of absolute light power, connects the tested light to test the present power value. dB is pressed at this moment

and the present power value is reference (dBm is unit). Another tested light is connected and the absolute and relative power are shown.

Standard Configuration

The mainframe to count the electricity power, three 5# battery (optional), warranty card, certification, oxford soft bag (optional), data lines(optional), build-in Li battery (optional), charger (optional), adapter (SC and FC are standard configuration, ST is optional)

Charging Function (Optional)

The power index will not show when it is working. When the power is insufficient to provide a common working, the index will be flash in every second. 10 seconds will shutdown automatically. Please do not start it at this moment. You should start with the matched power adapter.

Common Malfunction Solution

Malfunction Tips	Cause	Solution
LCD monitor weak	Insufficient power	Charge or change battery
Could not display when starting	Insufficient power or others	Restart machine or charge, change battery
abnormal data display of LCD	Adapter fault, dirty or be locked	Reconnect adapter and clean sensor

Daily Maintenance and Repairing

1、Please keep cleaning of the sensor frequent and there should be no fat, no pollution and not use dirty and not standard adapter. Do not insert the end

face of bad polished surface, or it will damage the end face and there will be error in testing.

2、Try to insist using one adapter

3、Once the machine is unused, please cover the dust cap to keep the end face clean prevent from exposing in the air and prevent from attaching the dust which leads to the wrong measurement

4、Take off the adapter carefully to avoid any scratch in the end face.

5、 Clean the surface of sensor regularly. When cleaning sensor, please use the special cleaning swab of round side.

Quality Guarantee

1、 In 18 natural month when users receive, our company will make a promise to the material and process of the products. The warranty period is from the receive date to the 18th month. When the purchased products were founded out with quality issue in this period, our company will do correspondent handle or change. But under all circumstance, the responsibility will not surpass the purchase value of the product.

2、If the instrument has something wrong when using and it is unsolved with the common malfunction solution, users are forbidden to open the shell and contact with our company.

3、 As to the malfunction made by the disadvantage of the product, our company will be in charge of repairing or changing product for free.

Note: the guarantee is only suitable in the normal instrument under the situation of no damage and no wrong operation, our company will repair or change freely if the mistake is made by quality or disadvantage of material. As to accident or improper usage or repair without authorization, our company has right to reject the guarantee.