XL-FM130KL/KU

Optical Power Meter

User Manual

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1. Summary

This Optical Power Meter, a new generation of high-performance optical network test meter, with the characteristics of excellent performance and fast filed–test, has adopted the latest laser exploration and processing technology. It is an integrated optical power meter aimed at optical network operation, maintenance, equipment research and development.

It can be used to test optical power within the range of 800~1700nm wave length, with the unit as nW, μW, mW, dB, dBm. Its display resolution level and test accuracy are high. There are 850nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm, six kinds of wavelength calibration points. It can be used for linearity and non-linearity test and display both direct and relative test of optical power.

The meter is small, light and easy to carry with large LCD screen. It can be widely used in the test of LAN, WAN, metropolitan network, CATV net or long-distance fiber net and other situations. It can be used to test fiber loss accurately, to check the fiber continuity and to help to evaluate the transmission quality of fiber chain with the laser source.

2. Functions

2.1 Multi-wavelength precise measurement

2.2 Absolute power measurement of dBm or xW

2.3 Relative power measurement of dB

2.4 Auto off function

2.5 270, 330, 1K, 2KHz frequency light identification and indication

2.6 Low voltage indication

2.7 Applicable to versatile adapters (FC, ST, SC, LC)

2.8 Handheld, large LCD backlight display, easy-to-use

3. Specifications

3.1 Wavelength range (nm): 800~1700

3.2 Detector type: InGaAs

3.3 Measurement range (dBm): -50~+26, -70～+10

3.4 Uncertainty: ±5%

3.5 Resolution: Linearity display: 0.1%

Logarithm display 0.01 dBm

3.6 Auto off duration (min): 10

3.7 Battery: 4 pcs AA batteries (lithium battery is optional, if you has special need please inform us in advance, or else, we just provide standard AA batteries.)

3.8 Battery-hold duration (h): no less than 75 (according to

the battery volume)

3.9 Operating temperature (°C): -10~+50

3.10 Storage temperature (°C): -30~+60

3.11 Weight (g): 430 (without batteries)

3.12 Dimensions (L*W*H, mm): 200×90×43

4. Layout

5. Operation

1. Turn on/turn off

You can realize turn on/off function when pressing the ⏻ key. This meter defaults auto off function is available when you turn on the meter.

When this meter is on, short press ⏻ key can open 10 minutes Auto-off function. Press ⏻ key again to close this function.

Press ⏻ button more than 2 seconds, you can turn off this meter.

2. dBm key

Press this button to show absolute optical power measurement value.

3. λ key: wave length choice key

You can choose one kind of six wave length, namely 850nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm, by pressing **λ** key and the wave length which is chosen will be displayed on LCD screen. The default wavelength is 1310nm; others are 1310nm, 1490nm, 1550nm, 1625nm, 850nm, 1300nm.

4. REF key

Press this key, LCD shows relative power value.

5. ☼ key: open/off backlight

Press this key to control the backlight on or off.

6. 270, 330, 1K, 2KHz frequency light identification

When entering light are 270, 330, 1K, 2KHz modulated light, the meter can identify frequency automatically and show it on the LCD. This function should use with laser source.

6. Maintenance

1. Please keep the sensor surface clean, do not use the dirty or nonstandard adapter tie-in, do not insert into the port which is poorly polished, otherwise, it will damage the sensor end.
2. Please operate carefully to replace adapter for different linkers. The spare adapter should be stored hermetically to avoid the dust.
3. Please cover the dustproof cover to keep the interface clean when the optical power meter is not used. Please do not put the sensor in the air, or something of test error will be caused because of the dust.
4. Please clean the sensor end regularly.
5. In order to make the service time of battery as long as possible. Please take out the battery if it is not used for long.

7. Faults & Solutions

Faults	Reasons	Solutions
LCD display is dark.	Low voltage.	Replace battery or charge.
Big error for test result.	Sensor's surface is dirty.	Clean sensor, Replace battery or charge. .
There is nothing displayed when switch on this meter.	The battery is under voltage/other reasons.	Replace battery.

8. Charge Battery **(only for rechargeable battery)**

During using time, if batteries are out of power, please charge them by our charger, the indicator light on charger is red when charging, when indicator light is green, which means the charging is ok. Charging time is about 4-5 hours.

Series of Optical Power Meter

Sub Model	Power test range （dBm）	Adapter interface
XL-FM130KU	-50～+26	FC,ST,SC,LC
XL-FM130KL	-70～+3	FC,ST,SC,LC

Please inform us which model you will choose when you place the order, then let us give you the best quotation and provide you with proper products.