



XL-FMS125A

Optical Multi Meter

User`s Manual

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1. Overview

XL-FMS125A Optical Multi Meter is a handheld and intelligent instrument, which can be used as optical power meter and stabilized light source, and can constitute integral test system. It is an updated version of a popular in the industry optical power meter with a built in LD stabilized light source at 1310&1550nm wavelength, one port output .It is specifically designed for technical support personnel to take a variety of instruments with a single meter.

2. Features

- (1) Dual-wavelength LD stabilized Light Source, one port output.
- (2) Battery (Rechargeable) + AC Power Supply.
- (3) Just-push-it key function for light source on or off, easy-to-use.
- (4) Truly universal output adapter design, without troublesome different adapters change in operation when SC or ST connection needed.
- (5) Different Light Source and Power Meter can be built into XL-FMS125A, tailor to customer requirements.

3. Applications

Optical cable laying site or laboratory
Optical communication systems
Optical fiber attenuation measurement
Optical communication system maintenance

4. Specifications

Power Meter	Parameter	Value
	Detector	InGaAs
	Wavelength (nm)	800~1600
	Operation Wavelength (nm)	850,980,1310,1550
	Measurement Range (dBm)	optional
	Resolution (dB)	0.01
	Uncertainty	±5%
Light Source	Emitter Type	F-P ,DFB.LED
	Operation Wavelength (nm)	1310/1550(optional)
	Output Power (mW)	≥-7dBm(FP,DFB) ≥-20dBm(LED)
Optical Multi Meter	Type	XL-FMS125A
	Power	8.4V Battery (rechargeable)+C AC Power Supply
	Auto-off time	10minutes
	Rechargeable Battery Working Time	≥2hours(Light Source and Optical Power Meter work at the same time) 28 hours (only optical power meter work)
	Operation Temperature(°C)	-10~+60
	Dimensions (mm)	150X76x26
	Weight (g)	250

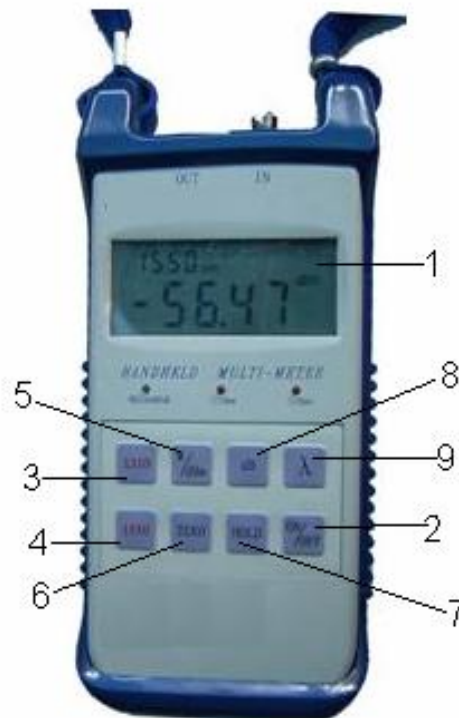
5 Standard Packages

Unpack the XL-FMS125A package and check that the following standard components are included with your order:

XL-FMS125A Handheld Optical Multi Meter.....	1
Manual.....	1
Protective Holster.....	1
8.4V Battery (rechargeable)	1
AC Adapter for power supply.....	1
Carrying Case.....	1

Your order has been provided with the safest possible packaging, but shipping damage does occasionally occur. Inspect your order carefully for damage that may have occurred during shipment.

6.Panel and Functions



Keys and Functions

(1) Liquid Crystal Display

Measurements are displayed in absolute or relative digit in addition to set wavelength.

(2) ON/OFF Key

Pressing the on/off key turns the unit on or off. (XL-FMS125A default is power meter) The XL-FMS125A will conserve battery life by automatically turning off if no keys have been pressed for approximately 10 minutes.

(3) 1310 Key

When the XL-FMS125A optical multi meter is on, press the "1310"key, XL-FMS125A light source works properly at 1310nm, and the 1310 indicator light is on. Press the "1310"key again, 1310nm light source is off. When the light source works properly at 1550nm, press the "1310" key , it will work at 1310nm again.

(4) 1550 Key

When the XL-FMS125A optical multi meter is on, press the “1550”key,XL-FMS125A light source works properly at 1550nm, and the 1550 indicator light is on. Press the “1550”key again, 1550nm light source is off. When the light source works properly at 1310nm, press the “1550”key , it will work at 1550nm again.

(5) W/dBm Key

Under the condition of set wavelength, press the key displaying the absolute power measurement value. Meanwhile it can transform the absolute value to the relative value by pressing the key.

(6)“ZERO” Key

Press the key for auto-zero, displaying “NULL” in the LCD.

(7)“HOLD” Key

Press the key for storage current measurement value.

(8) “dB” Key

Under the condition of set wavelength, press the key displaying the relative measurement value.

(9) “λ”Key

The Greek symbol lambda (λ) is used to denote wavelength of light. Pressing the λ Key selects the wavelength to the measured. It has four wavelengths available: 850nm, 980nm, 1310nm, and 1550nm. Annunciations in the LCD will indicate the currently selected wavelength.

7. Operation

How to use the optical power meter:

7.1 Switch on/off

1. Push ON/OFF key, LCD displays, switch on.(default: optical power meter)
2. OFF key, LCD becomes dark; switch off.

7.2 Absolute power measurement

1. Set measurement wavelength via λ key. Default wavelength is 1310nm.

2. Push W/dBm key until dBm unit is displayed.
3. Input light to be measured, then reading is displayed in LCD.
4. Linear and nonlinear value can be displayed by pushing W/dBm key.

7.3 Relative Power Value (Optical Link Loss) measurement.

1. Set wavelength for measurement.
2. Under "Absolute power measurement mode", input light and push dB key, then current power is stored as a reference value.
3. Input another light to be tested, and then relative power value is displayed.

7.4 Zero Adjustment

Press the "ZERO" key, optical power meter restores, indicating the "NULL" value in the LCD, the calibration wavelength is 1310nm.

How to use the Light Source:

7.5 Switch on/off

1. Push ON/OFF key, LCD displays, switch on. (Default: optical power meter)
2. Push ON/OFF key, LCD becomes dark; switch off.

7.6 1310nm Light Source

Press the "1310"key, XL-FMS125A works properly at 1310nm, and the 1310nm indicator light is on.

7.7 1550nm Light Source

Press the "1550"key, XL-FMS125A works properly at 1550nm, and the 1550nm indicator light is on.

7.8 Transform the operating wavelength at 1310nm or 1550nm

When the light source is on, press the "1310" or "1550" key, it can transformer the operating wavelength at 1310nm or 1550nm.

7.9. Switch off the Light Source when the XL-FMS125A is on

1. Identify the working wavelength
2. Press the relative key, switch off.
3. The light source will conserve battery life by automatically turning off, if 1310 or 1550 key have no been pressed for approximately 5 minutes. The power meter is on.

8. Trouble-shooting

Description	Probable cause	Method
Faint LCD display	Battery is inadequate	Change battery/recharge the battery for two hours
Switch on but no display	Battery is inadequate /Others	Switch on again/Change battery
Insensitive display in LCD	Light interface is polluted of broken/Display locked	Check light interface carefully and clean sensor's interface/Press "HOLD" key again.
The output port is polluted.		Clean the connector with alcohol smoothly.
Output power is fluctuating..		After warm-up for 15 minutes, then operate it.

9.Change Battery

9.1 you find battery is not enough while operating it, switch off XL-FMS125A.

9.2 The provided battery can be recharged with AC adapter for power supply.