



XL-FM130P PON Power Meter

User Manual

Version 1.0

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5. Maintenance

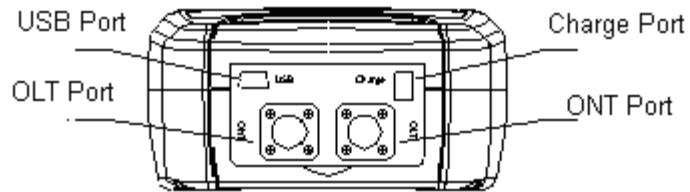
1. Keep the sensor's head face clean; make sure there's no dust, no contamination; don't use unclean and nonstandard adapters;; don't insert poor polished surface, or else it will damage the sensor's head face.
2. Be careful when changes the adapters; keep the spare use adapters airproof in dry place so as not to touch dirt.
3. When you are not using the meter, please cover the dust cap timely, keep the head face clean, don't expose the sensor in air for long time, or else it will be affected with dirt which will result in inaccuracy of measurement.
4. Clean the sensor's head face regularly.

1. Summary

xl-fm130p PON Power meter is spec. designed for PON Network construction and maintenance which can be connected between OLT and ONT. The voice, data, video signal online can be measured and displayed synchronously with this meter.

It adopts Low-Power Design which is more convenient to test in wild and at equipment site. It's a useful tool for the network engineers and maintenance operators.

2. Configuration



Press down arrow key flip to the second page of menu as following.

```
5 Time Set
6 History data
7 System state
```

Highlight Time set and then press Enter key to set the current time, choose the Y. M. D.T. M through by up or down arrow key and press Enter key to set the value as current time

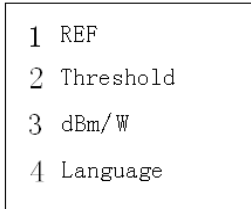
4.8 History Data

```
5 Time Set
6 History data
7 System state
```

Highlight History Data and press enter key in the menu and saved data; users can view relevant data by up or down arrow key.

4.6 Change language

In the main interface, highlight Menu and press enter key , will flip to the following picture.



Highlight language and press Enter key to change the languages. Choose “EN” through by up or down arrow key, press Enter key to choose the current shown language

4.7 Set Clock

In the main menu, highlight Menu and then press enter key, will flip to the following picture



USB connector:

Communicate with the management software through USB connector;

Charge connector:

Connect and charge the meter

ONT connector:

Connect with ONT equipment through pigtail when testing

OLT connector:

Connect with OLT equipment through pigtail when testing

1310nm:

Indicate the threshold state of 1310nm wavelength:
Green: pass; Red: failure; Blue: Warning

1490nm:

Indicate the threshold state of 1490nm wavelength:
Green: pass; Red: failure; Blue: Warning

1550nm:

Indicate the threshold state of 1550nm wavelength:
Green: pass; Red: failure; Blue: Warning

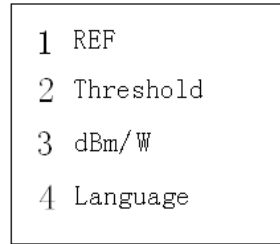
3. Functions & Specifications

3. 1 Functions

- 1- Test the three wavelength of the PON network synchronously:
1490nm, 1550nm, 1310nm.
- 2- Can test the burst mode signal of 1310nm
- 3- Can set the threshold value, upload data, and calibrate the wavelength through management software
- 4- Can save 1000 records and upload the records to the management software
- 5- Supply 10 groups threshold values for operator's choice
- 6- EN Menu display
- 7- Auto shut off (ON / Cancel)/ Auto backlit
- 8- Real-time clock display

3. 2 Technical Specifications

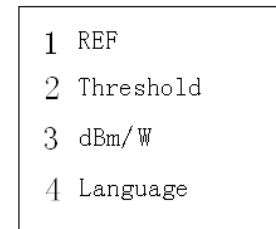
Standard wavelength	1310 (Up)	1490 (Down)	1550 (Down)
Pass Zone (nm)	1260~1360	1470~1505	1535~1570
Range (dBm)	-40~+10	-40~+10	-40~+20
Isolation@1310nm	NA	>40	>40



Highlight Threshold and then press Enter key to choose the threshold value, check the threshold name by up or down arrow key, press Enter key to choose current item. (Operators can set the threshold through management software. Operators can download threshold into the meter after modified in the software)

4.5 dBm/ W

In the main interface, highlight Menu and then press enter key, will flip to the following picture.



And then highlight dBm/ W, press Enter key to switch the units; choose "dBm" or "xW" by up or down arrow key.

been cancelled , in this case, we need to shut off the meter by press key. Meanwhile, the “■” can indicated the power of the meter; if the power is low, please charge it in time.

4.3 Ref value measurement

In the main interface, highlight Menu and press enter key, will flip to the following page:

1	REF
2	Threshold
3	dBm/W
4	Language

Highlight REF and then press Enter key to perform the Ref measurement function. Check the test result of 1310nm, 1490nm, 1550nm through by up or down arrow key.

4.4 Choose threshold

In the main interface, highlight Menu and then press enter key, will display as following picture.

(dB)			
Isolation@1490nm (dB)	>40	NA	>40
Isolation@1550nm (dB)	>40	>40	NA
Accuracy			
Uncertainty (dB)	±0.5		
Polarization relevant loss(dB)	<±0.25		
linearity (dB)	±0.1		
Through Insertion loss (dB)	<1.5		
Resolution	0.01dB		
Unit	dBm/xW		
PASS/FAIL Threshold	LED Indications		
Pass/fail@1310 nm (dB)	Green: pass; Red: fail; Blue: warning		
Pass/fail@1490nm (dB)	Green: pass; Red: fail; Blue: warning		
Pass/fail@1550 nm (dB)	Green: pass; Red: fail; Blue: warning		
General Specification			
Display	128*64 lattices		
Battery	7.4V 2800mAH Rechargeable Li battery;		

	continuous work to 120 hours
Work temperature	-10~60℃
Storage temperature	-25~70℃
Dimensions (mm)	179*93*48

4. Use Notes

4. 1 ON/OFF

ON: Press ON key about 2 seconds, the Power indicator will light, the backlit of the meter will brighten, the main menu will display as the following picture, this means the meter is in the normal work mode, users can start test.

OFF: Press OFF key, the LCD displaying closed, Power indicator shut off, this means the meter has already off.

1310nm	LOW
ONT	
1490nm	LOW
OLT	
1550nm	LOW
VIDEO	
09-02-27	08:47



4.2 Set/Cancel Auto-off Function

When the meter is in the auto-off mode, if there's no operation on the key for 10 minutes, the meter will shut off automatically.

The default is Auto-off function is valid, if operators want to cancel auto-off function, they should press "Menu" in the main interface, and the following picture will appear.

1	REF
2	Threshold
3	dBm/W
4	Language

Press down arrow key on the above picture will flip to second page of main menu, highlight System state and then press Enter key, the meter will display following picture.

System state

Power state


The sign "⏻" indicates that the meter is in auto-off mode. If there's no operation on the key for 10 minutes, the meter will shut off automatically; in this case, press ON or OFF key, the sign "⏻" will disappear, this indicates that the auto-off function has