

XGPON Optical Power Meter– LNT-OPM-PX

Installation Instructions



MODELS

LNT-OPM-PX

XGPON Optical Power Meter

Warning:

To reduce the risk of fire or electric shock, do not expose the equipment to rain or humid environments. To prevent electric shock, do not open or disassemble the housing. Repairs and services should be performed by qualified personnel.

Laser Safety:

The laser is harmful to the eyes, do not disassemble the housing or look directly into the laser output port. Avoid direct eye exposure to the laser beam.

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Precautions for Use

Avoiding condensation:

Sudden changes in temperature should be avoided as much as possible. Do not use the device immediately after moving it from a cold environment to a warm environment, or when the surrounding temperature rises quickly as condensation could form inside the device.

If the device experiences a sudden temperature change, stop using and let it acclimate for at least one hour before powering it on.

Storage:

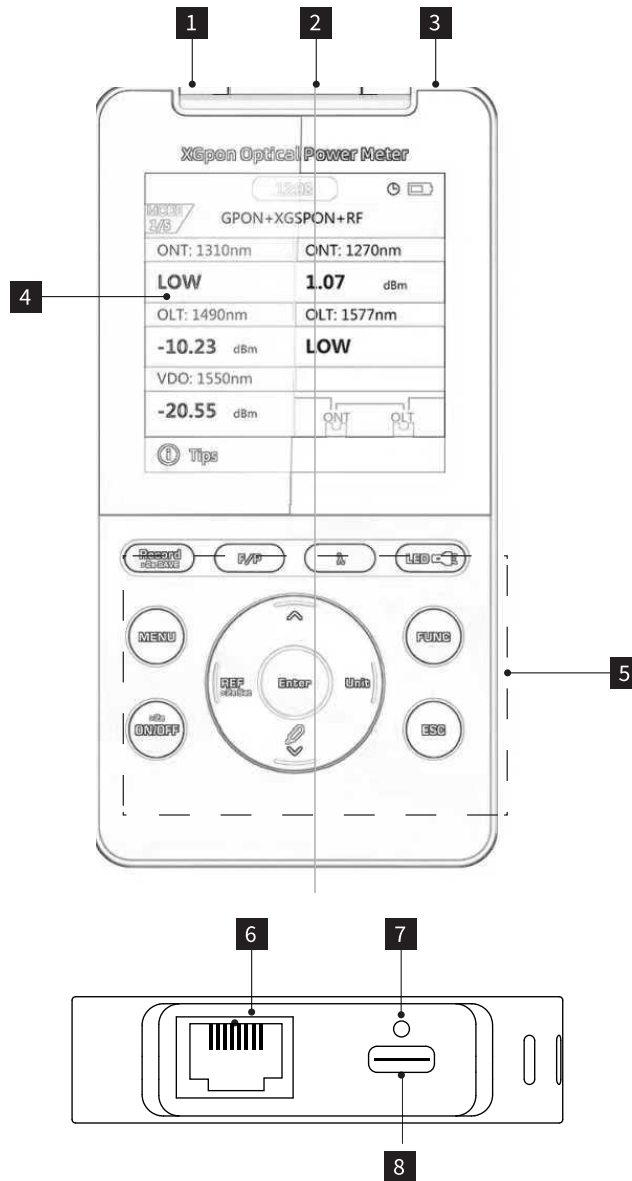
When the device is stored for a long time without being used, it should be charged to a medium state of charge. Storing the battery at a very high or very low state of charge for prolonged periods may reduce battery life and performance.

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Description



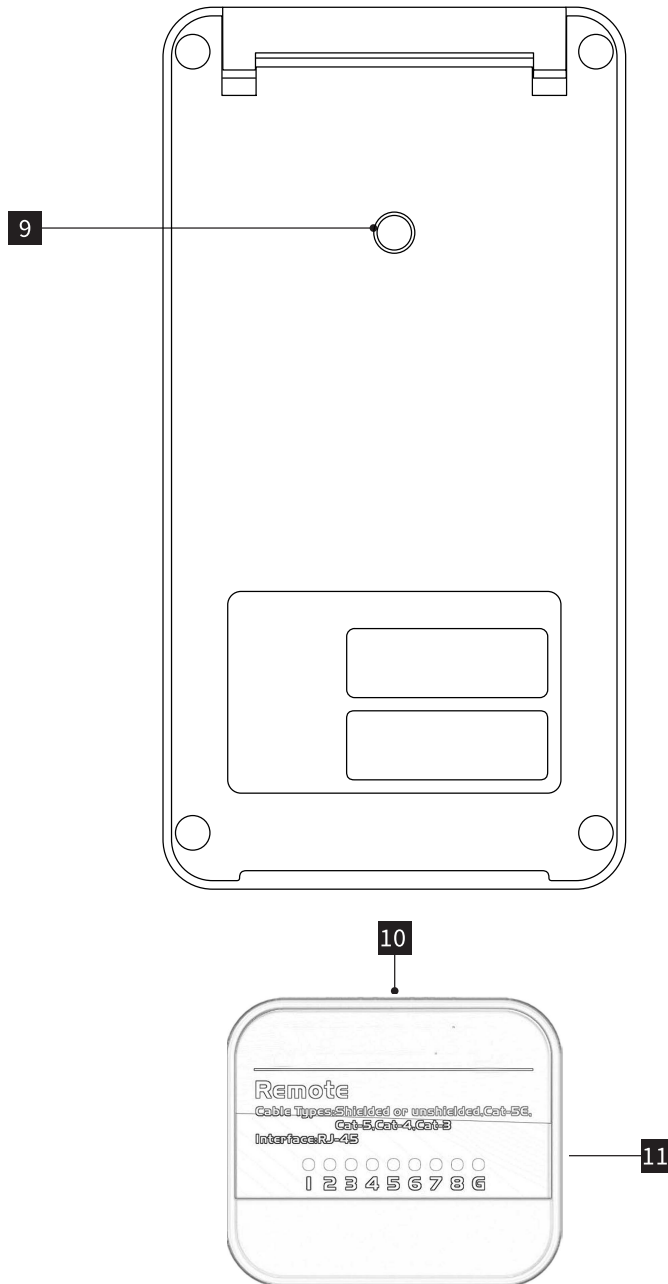
- | | |
|---------------------------|-----------------------------|
| 1 ONT connector | 2 OPM connector |
| 3 OLT connector | 4 LCD |
| 5 Function key | 6 RJ45 connector |
| 7 Type-C connector | 8 Charging indicator |

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Description



9 LED light

10 RJ45 connector

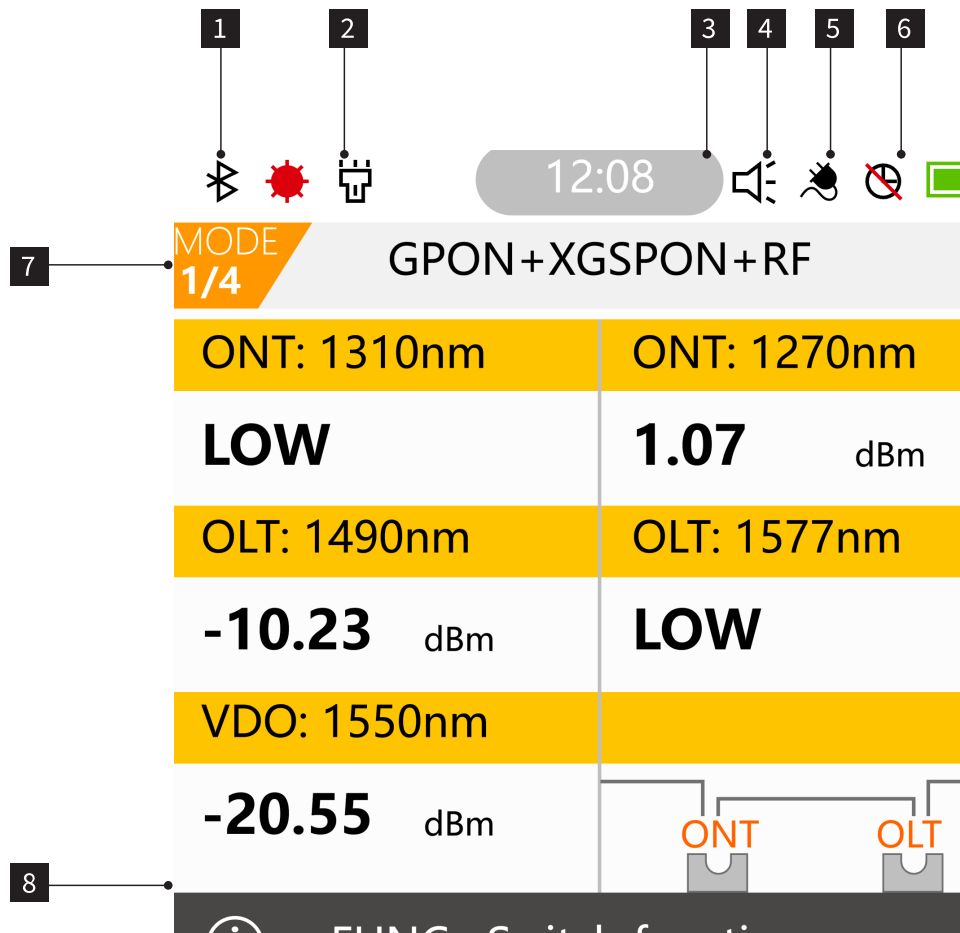
11 RJ45 test indicator

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Description



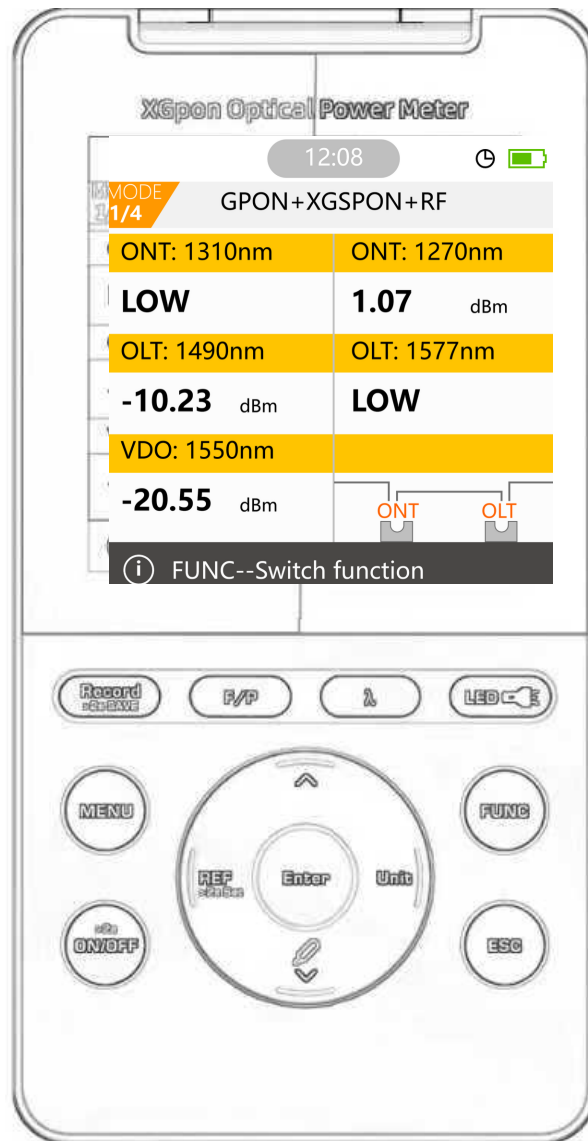
- | | |
|--------------------------------|----------------------------|
| 1 Bluetooth | 2 LED light |
| 3 Prompt Tone | 4 USB Power Supply |
| 5 Power saving function | 6 Battery indicator |
| 7 Function Indication | 8 Prompt Guide Bar |

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Power On/Off



Long press “” key to turn on/off the device. The device power-saving function, auto-off and sleep time can be set in the menu.

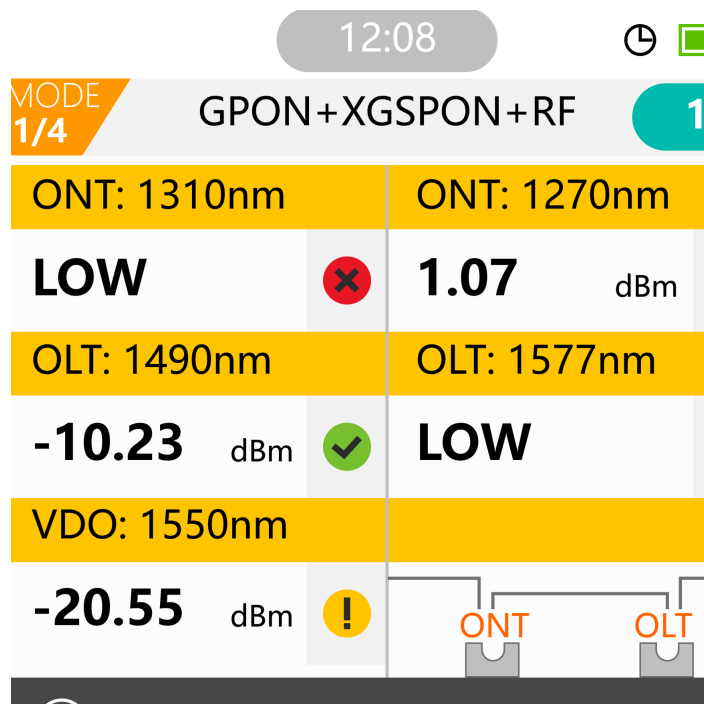
Note: Press any buttons to wake up the screen when in sleep mode.

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XGPON Optical Power Meter



After startup, the device automatically enters the **XGPON Power Meter** testing interface.

The XGPON Power Meter can simultaneously measure the following optical signals within an XGPON network:

- **1310 nm** – Uplink signal
- **1490 nm** – Downlink data signal
- **1550 nm** – Downlink video signal

Press “” key to judge whether the network meets the communication requirement based on the presetting threshold, and display with judgement icons. Meanwhile, the threshold group number will be showed on the upper right.

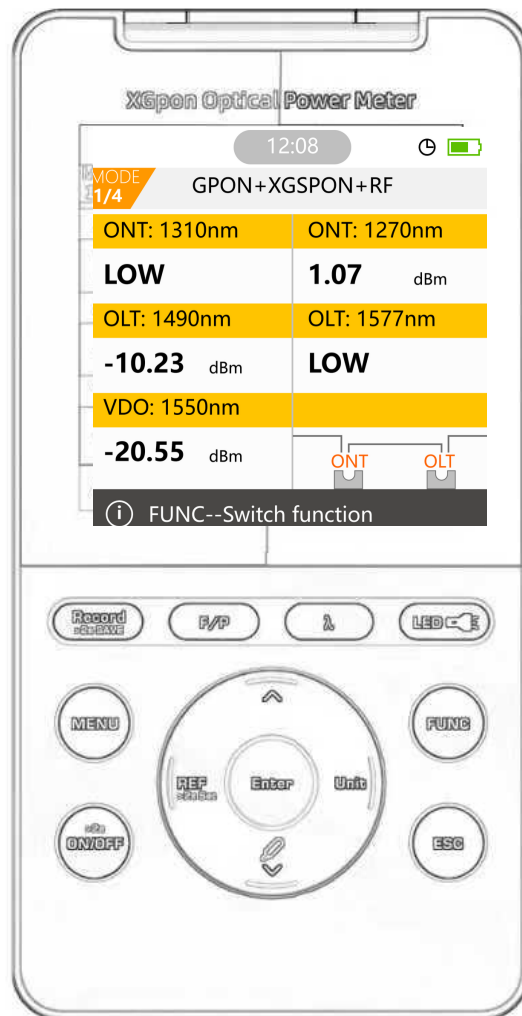
Press “” key to change units: dBm/mW/dB, and nW/mW/μW will be auto-switched based on the measurement range.

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XGPON OPM-Reference Setting



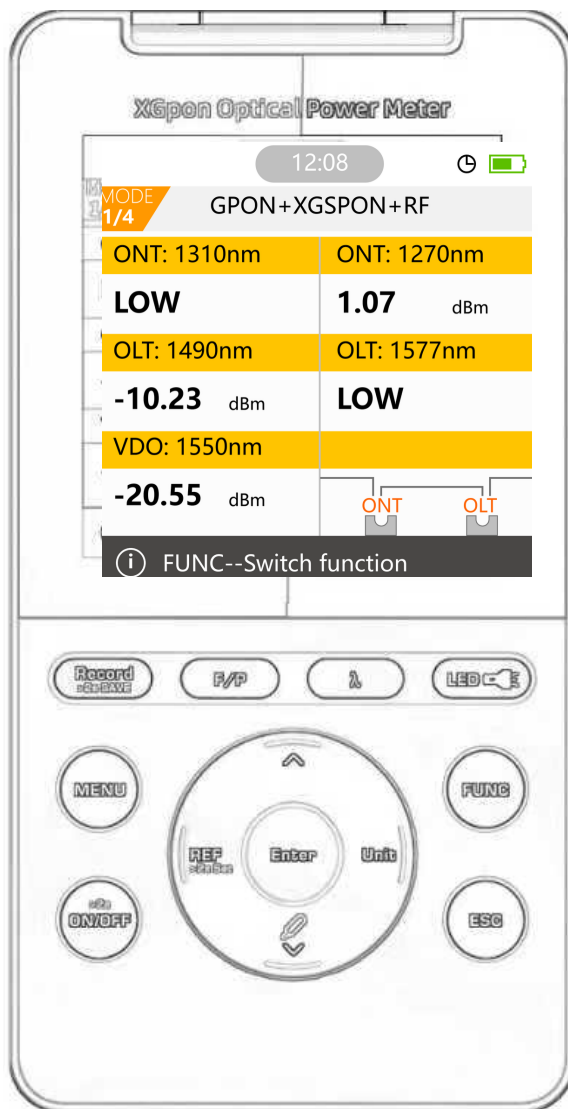
Press “” key under XGPON measurement interface, the LCD will show “REF” and a preset reference value for 2s. Long press it for 2s, "REF" sign will flash 3 times, which means saving the current measured value as a new reference value. After that, it will show the dB value, $\text{dB} = \text{dBm} - \text{REF}$

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XGPON OPM – Data Storage



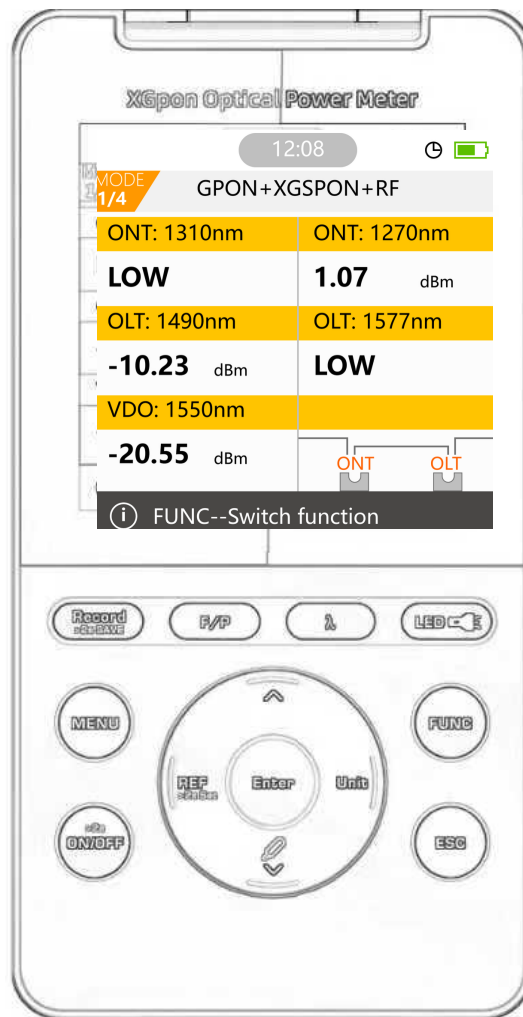
Long Press “**Record** >2s SAVE” key to save the testing result (Max. 10000 traces), if over, then overwrite from the first record. Short press “**ESC**” to browse the stored data, and “**↑**” “**↓**” key to view the records.

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Cable Hunting



Press “” key, switch to cable hunting function. Cable test info area icon will display synchronously.

Connect both ends of cable to the host and module respectively. Judge whether the cable is qualified or not by host UI and module indicator status.

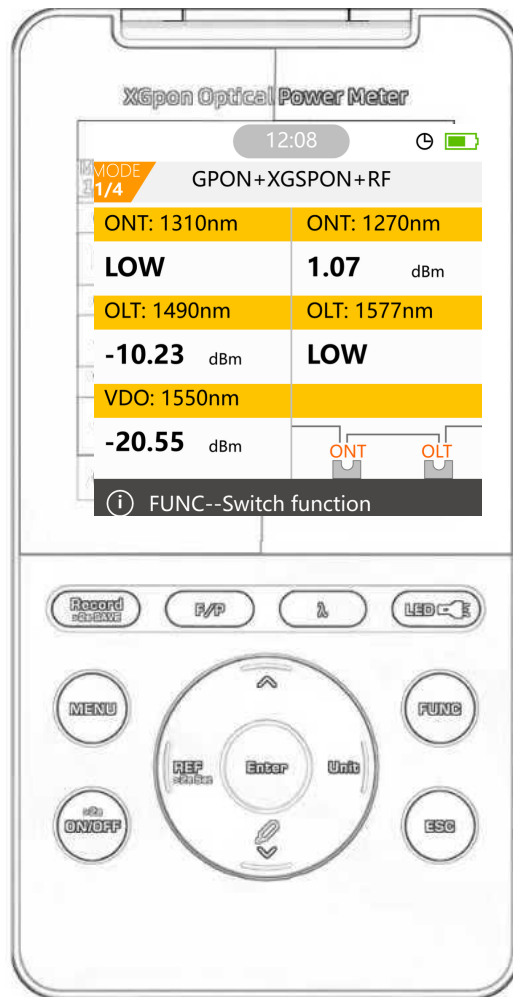
Press “” key, switch the line sequence digital cable hunting or simulation cable hunting.

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Cable Sequencing Test



Press "  " key, switch to enter cable sequencing test interface. Connect both registered jacks of tested cable to host and remote network module and operate according to the diagram.

Cable sequencing test: detects whether sequence of cable is correct, whether wrong lines, broken lines etc... have existed. The other end of the cable needs to be equipped with a remote module.

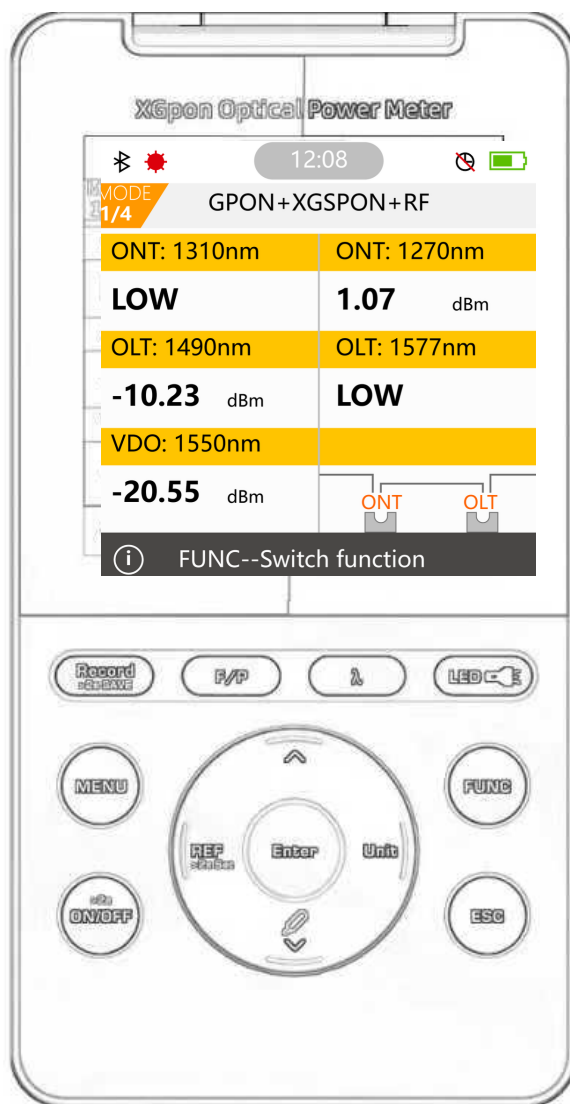
Press "  " key, switch A/B wiring standard.

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VFL (optional)



Press "  " key, VFL appears in the upper left corner of screen, which controls VFL on-glnt-off.

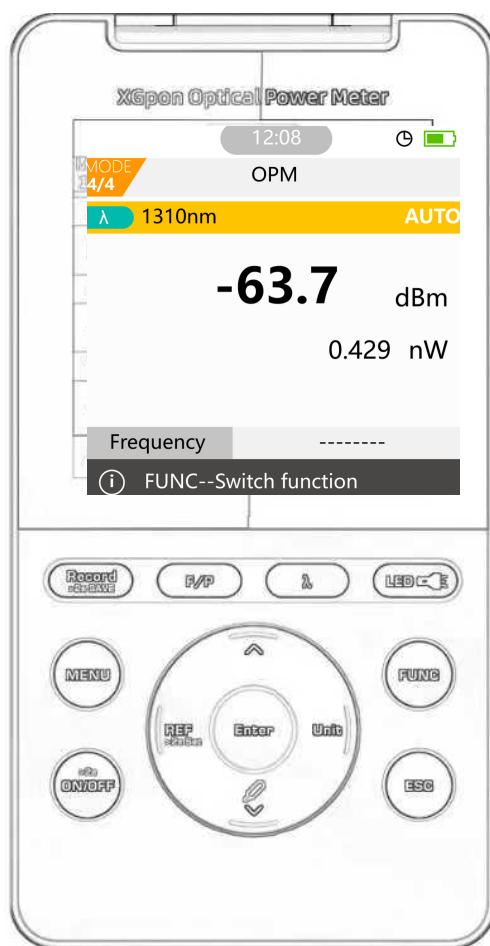
Press "  " key to turn on the LED light.

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OPM–Wavelength Selection (optional)



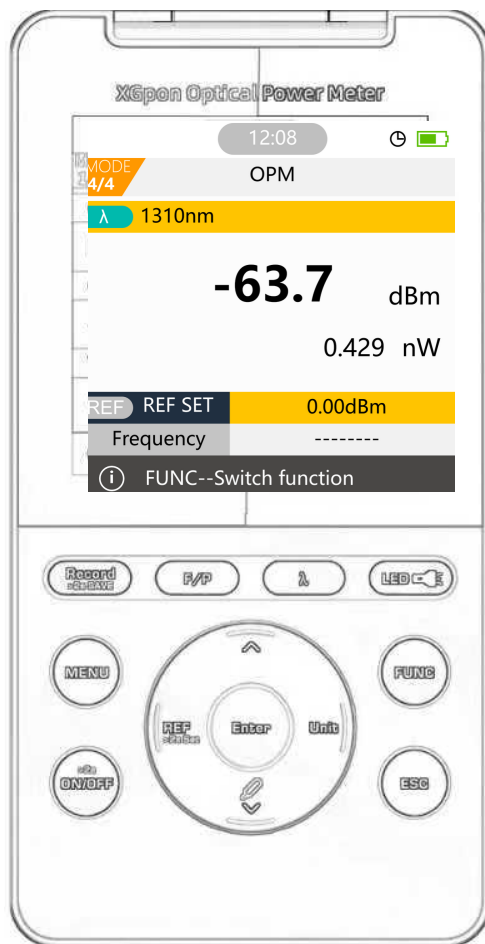
Press “” key to switch to OPM function. Press “” key to select wavelengths 850/1300/1310/1490/1550/1625nm, and long press to turn on/off wave ID function (only work with Fiber can OLS with same function).

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OPM – REF Setting



In OPM interface, press “” key to set and check the reference value of current wavelength. Long press “” key (REF glints 3 times) to set a new reference value, then enter dB Testing ($\text{dB} = \text{dBm} - \text{REF}$)

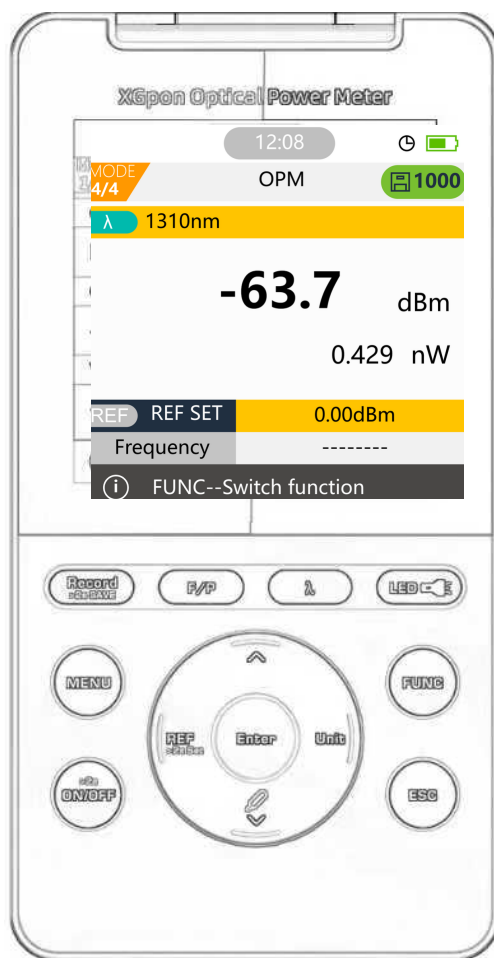
Short press “” key to back to dBm testing.

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OPM – Data Storage



OPM has storage function. Long press “” key to storage current measurement data in device. Current storage serial number blinks three times in the upper right corner of the screen and disappears after stored successfully. It can store max.1000 traces. If over, store again from the first record and replace the original storage value. Press “” to enter OPM file interface, press up/down keys to check stored data.

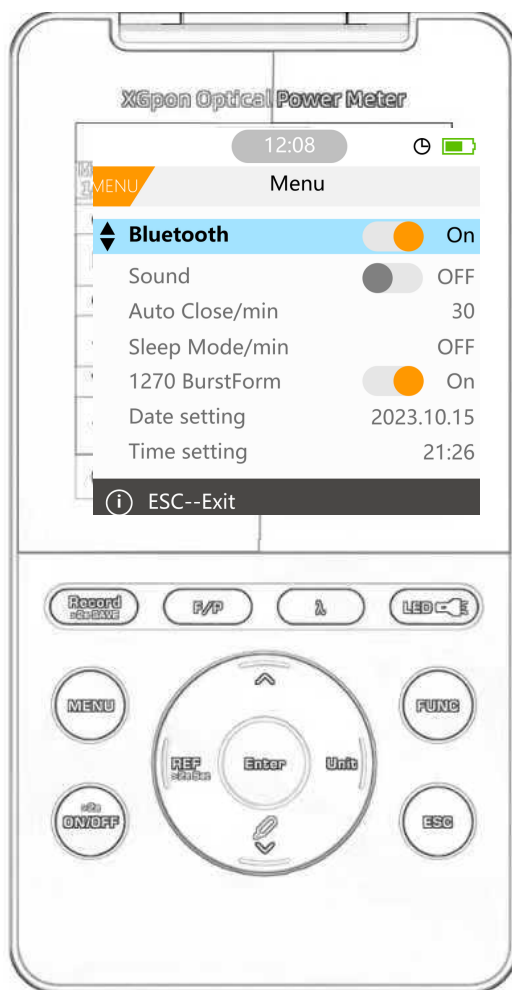
Press again to exit the interface.

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System Menu



Press "  " key to enter menu setting interface. System settings have five interfaces:

- Bluetooth
- Prompt tone
- Energy saving
- Sleep mode
- 1270 burst form

Date and time setting are in first interface.

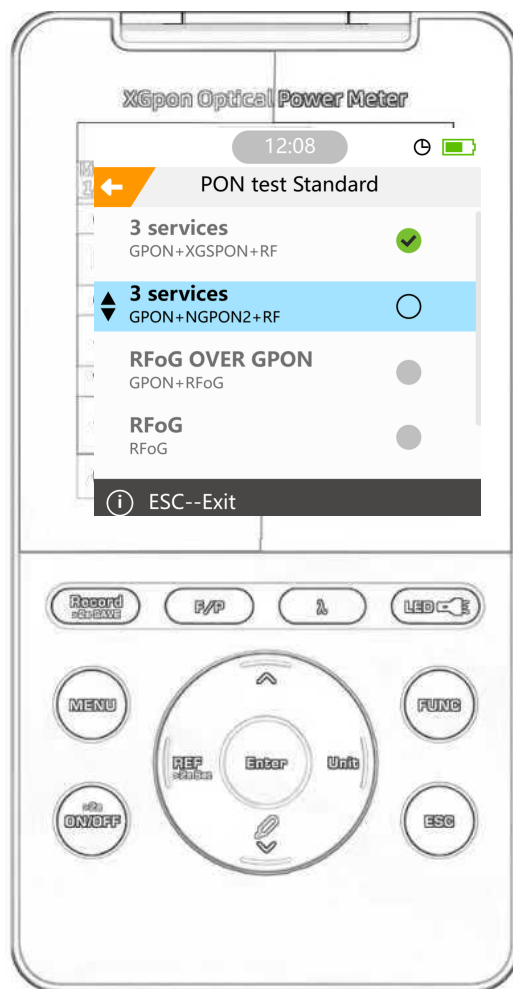
Press up/down key to select and press to enter editing mode. Then press up/down key to select and press to confirm and exit.

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System Menu – PON Test Standard



Select PON test standard and press “” to enter “PON test standard” interface.

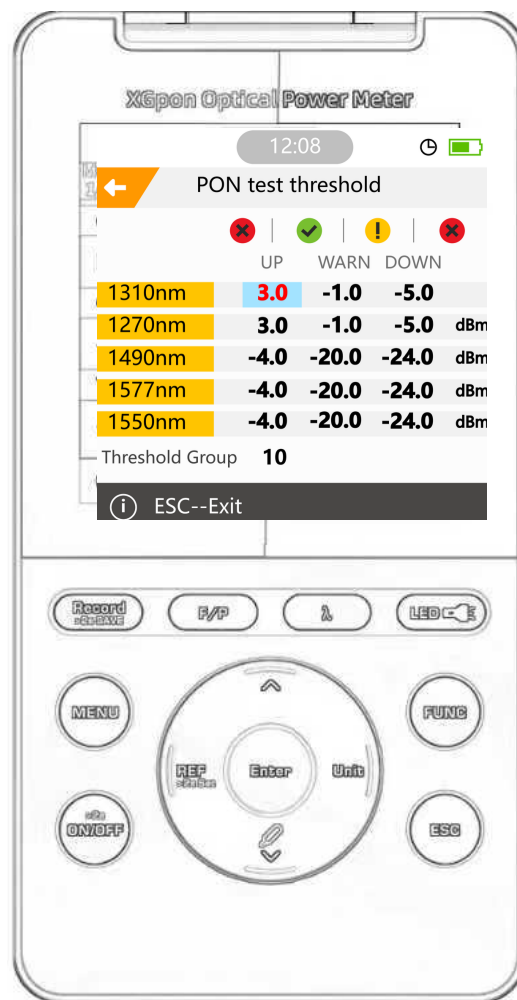
Press up/down key to confirm standard of setting and press “” to select.

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System Menu – PON Testing Threshold



Select PON testing threshold and press “” to enter “PON testing threshold” interface to set threshold value for judgement. Use arrow keys to confirm the threshold value and press “” key. When original value turns red, change the value by pressing up/down key. Pressing again to confirm the value.

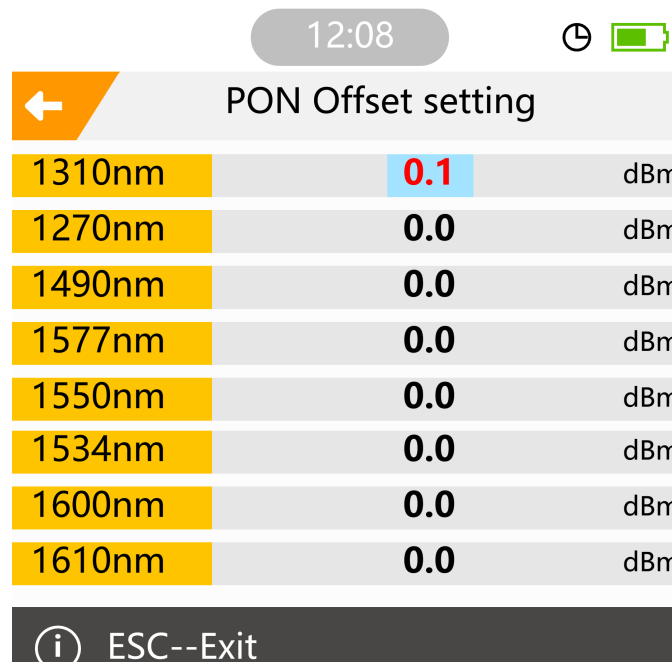
After setting, press “” in the PON OPM test interface for quick judgement on link qualified or not.

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System Menu – PON Offset Setting



Select PON Offset and press “” to enter “PON Offset setting” interface to set threshold value for judgement. Use up/down keys to confirm threshold value and press “” key. When original value turns red, change the value by pressing up/down keys, press “” again for value confirmation.

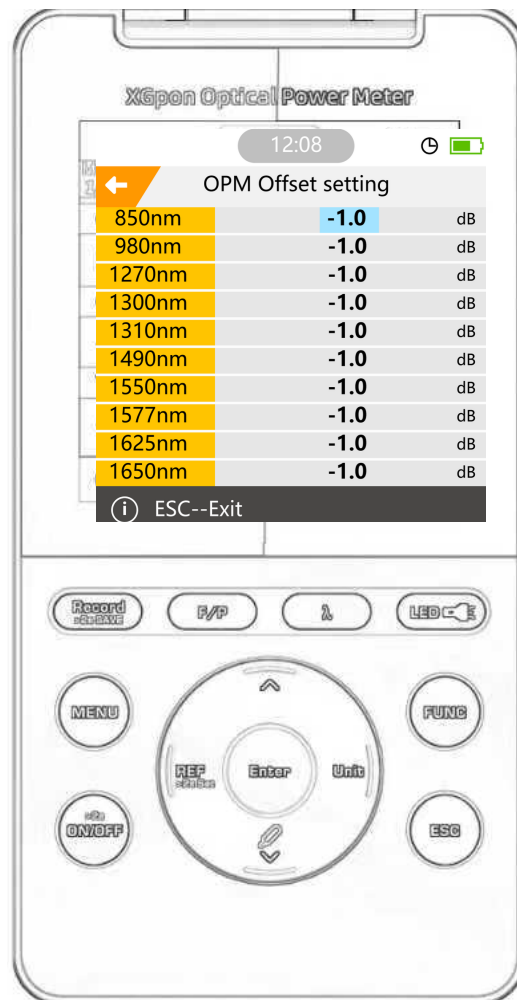
The **Offset Setting** provides an auxiliary method for calibrating the instrument. Over time, measurement deviations may occur due to normal use or other factors. Users can adjust the offset value to compensate for these deviations and align the instrument’s measurements with a reference meter or other compatible power meters.

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System Menu – OPM Offset Setting



Select OPM Offset, press “” key to enter “OPM Offset setting” interface. Offset setting can be used as an auxiliary way of calibration, deviation caused by various reasons after a period of use, can be set offset by customer. So, the measurement value of instrument is consistent with other meter brands and reduce deviation.

Note: When has VFL function, no such interface in setting system.