

3. dBm/W

- a. You can change the output units from dBm to W or vice versa by pressing the UP or DOWN arrow buttons and ENTER to select.

4. Language

- a. You can change the language to Chinese or English or vice versa by pressing the UP or DOWN arrow buttons and ENTER to select.

5. Time Set

- a. You can change the date and time of the device by pressing the UP or DOWN arrow buttons and ENTER to confirm.

6. History Data

- a. Data View - You can view the latest saved data here.
- b. Del Cur - Deletes the latest saved data.
- c. Del All - Deletes all saved data on the device.

4. Setting Custom Thresholds

The PON-50 can store up to 10 different threshold settings. Download and use the following software to set up your own thresholds to easily read whether the power output is within the specified range.

Software can be downloaded at: jonard.com/PON50

Below is an example of a custom threshold:

UploadData		ThresholdSet		Calibration						
Number	Name	1310			1490			1550		
		Pass	Warn	Fail	Pass	Warn	Fail	Pass	Warn	Fail
1	Test1	+3	-20	-30	+3	-20	-30	+3	-20	-30

In this example, the threshold range is between +3 ~ -20 dBm.

PASS: If the measured result is between this range for the 1310 nm wavelength, then the LED above the 1310 nm marking will illuminate green, indicating that it passes.

WARN: If the measured result is between -20~-30 dBm, the optical signal is in the warn status, and the LED above the 1310 nm marking will illuminate yellow.

FAIL: If the measured result is above +3 dBm or below -30 dBm, the optical signal is out of the threshold range, and the LED above the 1310 nm marking will illuminate red.

Troubleshooting

Problem	Possible Cause	Solution
No display on the LCD / Cannot turn on the device	1. Power is off	1. Press the Power button for 2 seconds to turn it on
	2. No Battery	2. Change the Battery
Inaccurate readings / Instability	1. Optical Interface is not clean	1. Clean the adapter heads and fiber cable surface
	2. Improper fiber connection	2. Reconnect the fiber using the correct adapters



MADE FOR LIFE®



PON-50 PASSIVE OPTICAL NETWORK POWER METER FOR BPON/EPON/GPON INSTRUCTION MANUAL

OVERVIEW:

Designed to perform live testing with OLT equipment, this PON Power Meter is perfect for use during FTTx/PON service tune-up or maintenance. It is able to simultaneously test and measure the signal power of voice, data, and video connections, and is an essential tool for the construction and maintenance of PON systems.

PRODUCT FEATURES:

- Analyzes voice, data, and video signals in BPON/EPON/GPON FTTx systems
- Concurrently measures 1310 nm, 1490 nm, and 1550 nm wavelengths anywhere in the network
- Three Pass, Warning, and Fail LED indicators allow you to quickly assess your network's power level
- USB port allows quick transfer of data, and up to 1,000 measurement items can be saved at once
- Optional 10-minute auto-off can be activated or deactivated
- Shatter-resistant sleeve protects it from accidental falls or other damage

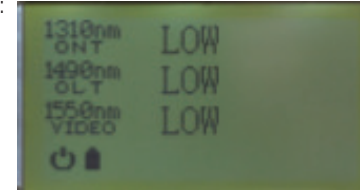
SPECIFICATIONS:

PON-50 OPTICAL POWER METER MODULE	
1310 Upstream Measurement	
Pass Zone (nm)	1260 nm ~ 1360 nm
Measurement Range (dBm)	-35 dBm ~+ 10 dBm
Output Power (max)	15 dBm
Isolation @ 1490/1550 (dB)	>40 dB
Burst Mode Measurement Error	< ± 0.5 dB
1490 Downstream Measurement	
Pass Zone (nm)	1470 nm ~ 1505 nm
Measurement Range (dBm)	-35 dBm ~+ 10 dBm
Output Power (max)	15 dBm
Isolation @ 1310/1550 (dB)	>40 dB
1550 Downstream Measurement	
Pass Zone (nm)	1535 nm ~ 1570 nm
Measurement Range (dBm)	-35 dBm ~+ 10 dBm
Output Power (max)	15 dBm
Isolation @ (1310/1490 nm)	>40 dB
Measurement Accuracy	
Connatural Uncertainty (dB)	± 0.5 dB
Linearity (dB)	± 0.1 dB
Passing through Insertion Loss (dB)	<1.5 dB
General Information	
Detector Type	InGaAs
Optical Connector	FC/SC/ST Interchangeable/ 2.5 Universal Adapter
Fiber Type	SM 9/125 micron
Measurement Unit	dB/dBm/xW
Resolution (dB)	0.01 dB
Operation Voltage (V)	DC 3.3 V ~ 5.5 V
Power Supply	(3) 1.5 V AA Batteries
Battery Life	90 Hours
Operation Temperature (°C)	-10°C ~ 60°C
Storage Temperature (°C)	-25°C ~ 70°C
Dimensions	6.25" x 9" x 2.8" (15.88 cm x 22.86 cm x 7.11 cm)
Weight	0.93 lb (0.423 kg)
UPC #	811490016095

INSTRUCTIONS:

1. Powering the Device ON and OFF

- Power the device ON by pressing the Power button for 2 seconds. The unit will display the following on the screen:



- The power symbol on the screen indicates that the 10 minute auto-off is activated. Short press the Power button to disable this auto-off feature.
- To turn the device off manually, press the Power button for 2 seconds.

2. PON Power Meter Testing

The PON-50 can simultaneously measure the PON network upstream signals of 1310 nm, downstream data signals of 1490 nm, and descending output video signals of 1550 nm. After powering the device on while not connected, the optical channels will display "LOW". Also, ensure you have selected the correct Threshold via the Options Menu before proceeding. If you have not set any thresholds yet, the default one will be used.

- Before connecting the fiber cables to be tested, ensure they are cleaned well using fiber cleaning fluid for optimal test results.
- Choose the appropriate adapter heads (SC or ST), connect them to the PON-50, and connect the corresponding fiber optic cables into them.
- Power ON the PON-50 via the Power button and it will display the output power for each wavelength being used.
- While at this test interface, press ENTER to prompt you if you want to save the data. Press ENTER again to save the data or CANCEL to back out.

3. Options Menu

- Press the MENU button and press ENTER on PON PM to enter the options menu.
- Press the UP or DOWN arrow buttons to navigate the menu. Press ENTER to choose an option or CANCEL to back out of the MENU. There are 6 options to choose from:

1. REF

- Relative output power measurements' reference values can be set.
- Relative Power = Testing Value – REF value.
- Press the UP or DOWN arrow buttons to select different wavelengths and press ENTER to change the REF value.

2. Threshold

- You can change the Threshold values here by pressing the UP and DOWN arrow buttons and ENTER to select which Threshold to use. There is one preset Threshold, but you can choose additional ones by setting them up in the provided software.

