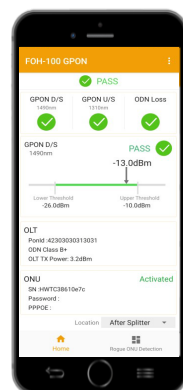


FOH-100 Series G/EPON Tester



FOH-100 Series G/EPON Tester is an ideal tool for field technicians to deal with G/EPON network correct installation, activation and maintenance. It can be series connected anywhere in your PON network and perform measurement without configuration. OLT infomation (PON ID*,Tx power), ONU infomation(ONU SN, Password, PPPOE) can be directly extracted. In addition, FOH-100 PRO can accurately identify the status of ONU (online/unregistered/rogue ONU/offline/ no ONU /fiber break).

Key features:

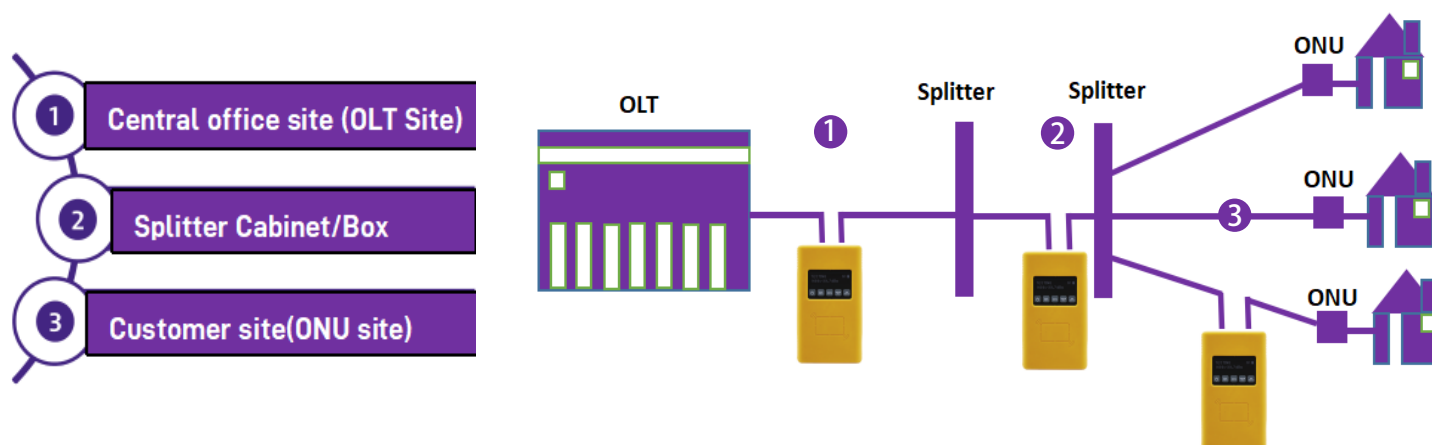
- 1: OLT and ONU identification (PON ID, OLT Tx power and ONU SN/Password/PPPOE account extraction)
- 2: Automatic power level 1490nm/1310nm measurement and certification
- 3: In-service fiber qualification according to ODN total loss
- 4: ONU status identification
- 5: Fast identification and location of rogue ONU in PON network
- 6: High precision OTDR for the measurement of the last mile of optical fiber (FOH-100 PRO)

*The PON-ID extraction needs to be activated in GPON OLT according to ITU-T G.984.3 Amd3

Advantage:

Active Series Connect Two ports pass through mode

- 1: Connect and perform measurement anywhere in your PON network
- 2: During the test, network will only be disconnected momentarily, and the user nearly has no feeling
- 3: No insertion loss, the optical signal power will be enhanced 3~10dB when FOH-100 series connect to the PON network



1: Central office site (OLT Site)

Extract OLT PON ID, OLT Tx power and all online ONUs ID, SN, etc under this PON port
Measure downstream 1490nm and upstream 1310nm power level of multi ONUs

2: Splitter Cabinet/Box

Extract OLT PON ID, OLT Tx power and all online ONUs ID, SN, etc under this splitter
Measure downstream 1490nm and upstream 1310nm power level of multi ONUs

3: Customer site(ONU site)

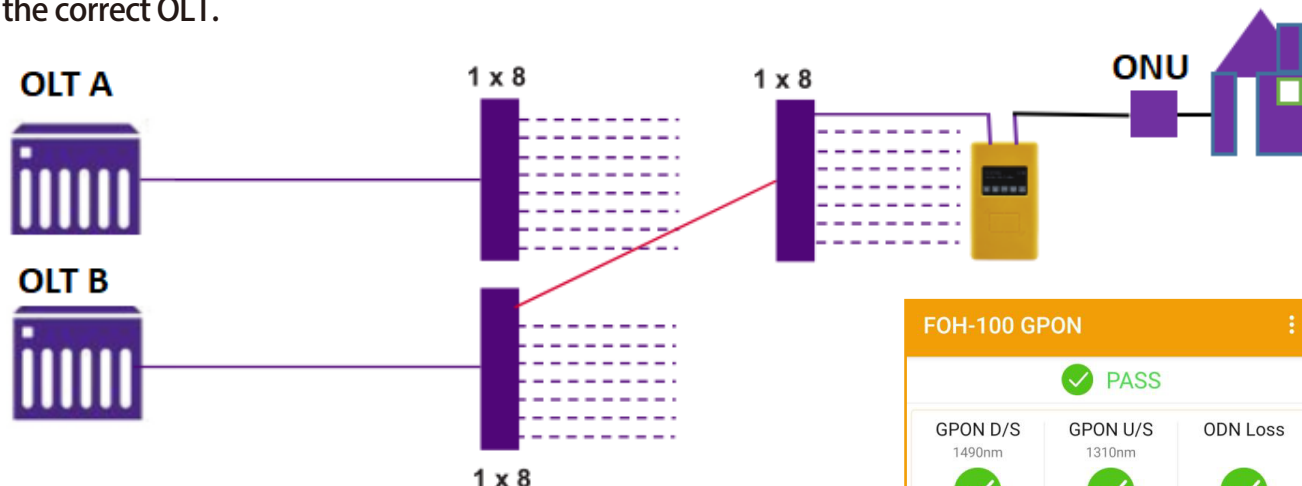
Extract OLT PON ID and single online ONU ID, SN, etc

ONU status identification of Splitter occupied port

Automatic power level 1490nm/1310nm, ODN loss measurement and certification

GPON ONU activation process verification

If the label of the optical cable or splitter is missing or wrong, the connection between the customer ONU and the OLT may be incorrect. FOH-100 can extract the OLT PON ID and ONU SN carried at any position of the network to ensure that the ONU is connected to the correct OLT.



OLT and ONU identification (PON ID and ONU SN extraction)

FOH-100 GPON

✓ PASS

GPON D/S 1490nm ✓	GPON U/S 1310nm ✓	ODN Loss ✓
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OLT

PonId :42303030313031
ODN Class B+
OLT TX Power: 3.2dBm

ONU

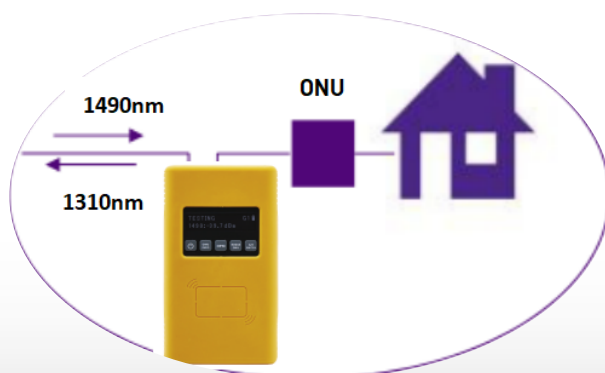
SN :HWTc38610e7c
Password :
PPPOE :

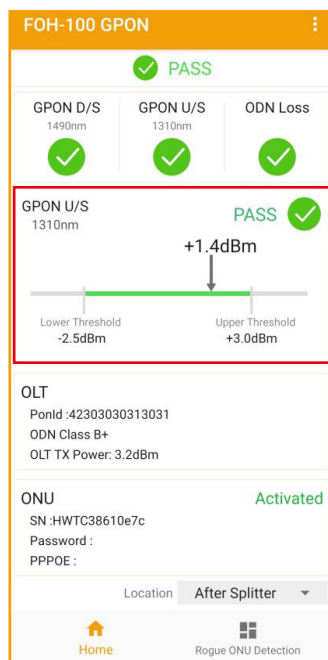
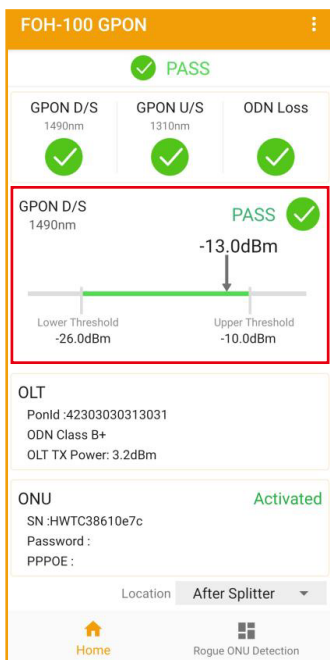
Activated

Location After Splitter

Automatic power level 1490nm/1310nm measurement and certification

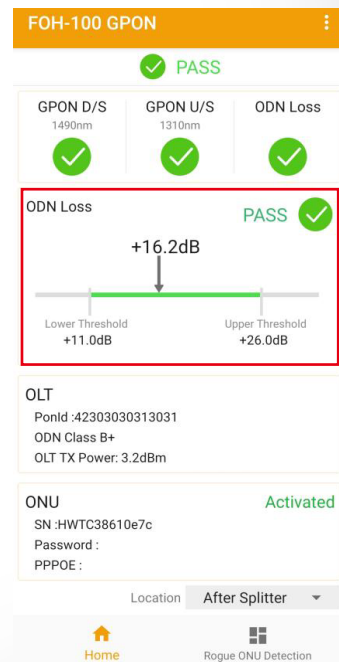
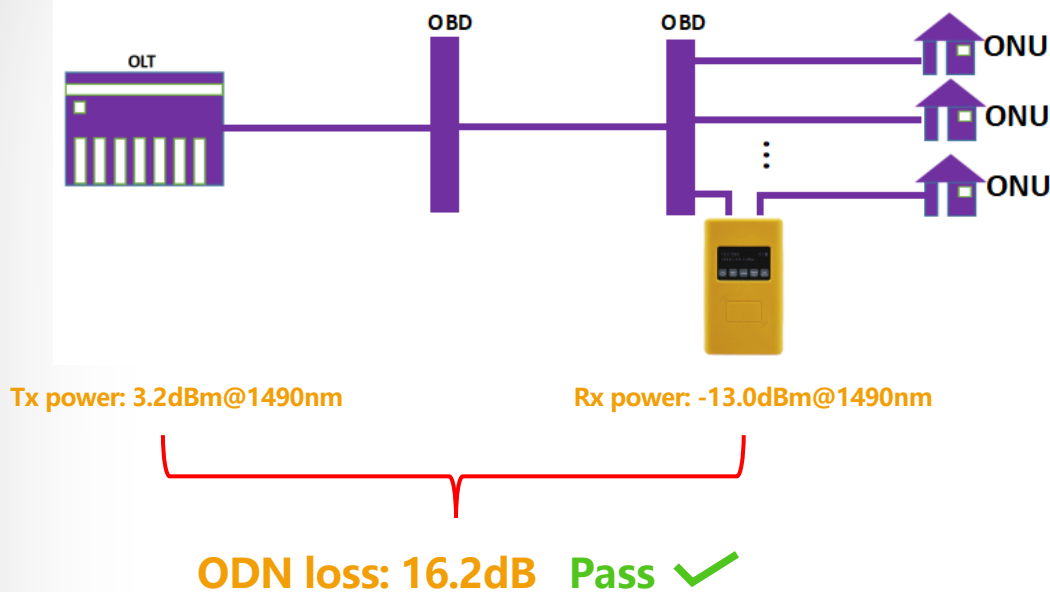
In verifying the power level at the customer ONU, FOH-100 can measure the downstream 1490nm and upstream 1310nm(burst mode) signal power to ensure that the power level meets the specification requirements of G/EPON service.





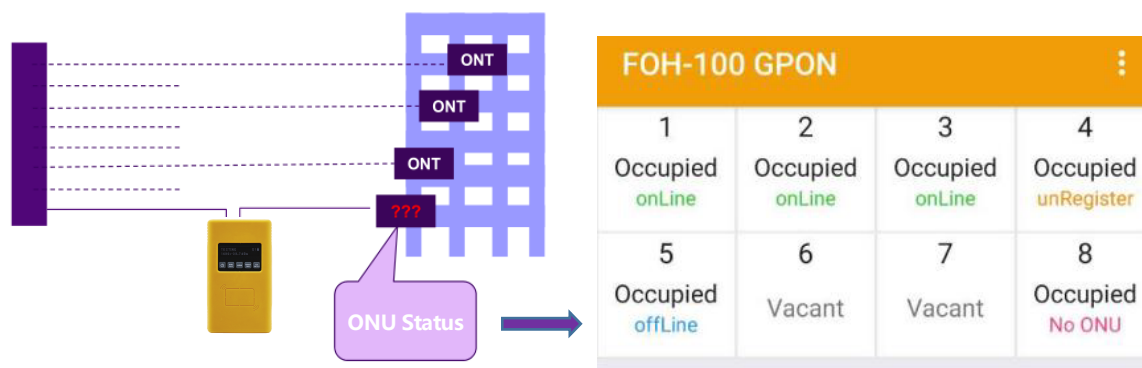
In-service fiber plant qualification

The end-to-end ODN loss test in the optical fiber construction stage can ensure that the optical fiber link meets the loss budget. However, after several years, when new customers subscribe to FTTH services, performance may be affected. FOH-100 can perform real-time fiber ODN loss measurement in GPON network.

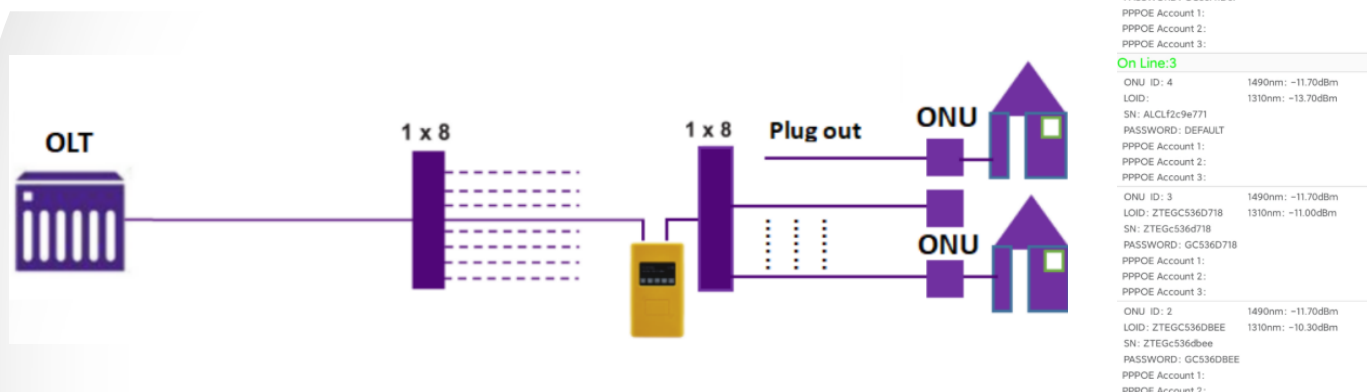


ONU Status Identification

FOH-100 PRO can accurately identify the ONU status of the splitter occupied port (Online/ONU unregistered/Rogue ONU/Offline/No ONU/Fiber break).



FOH-100 PRO can be series connected before splitter to efficiently display all online ONU information. By unplugging the output ports of splitter, the online ONU information can be quickly and easily corresponding to the output ports.

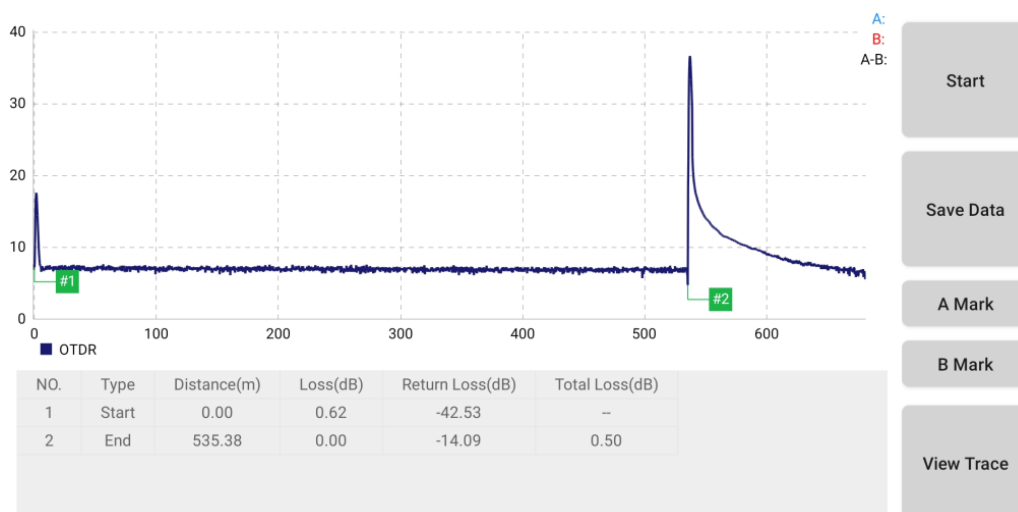
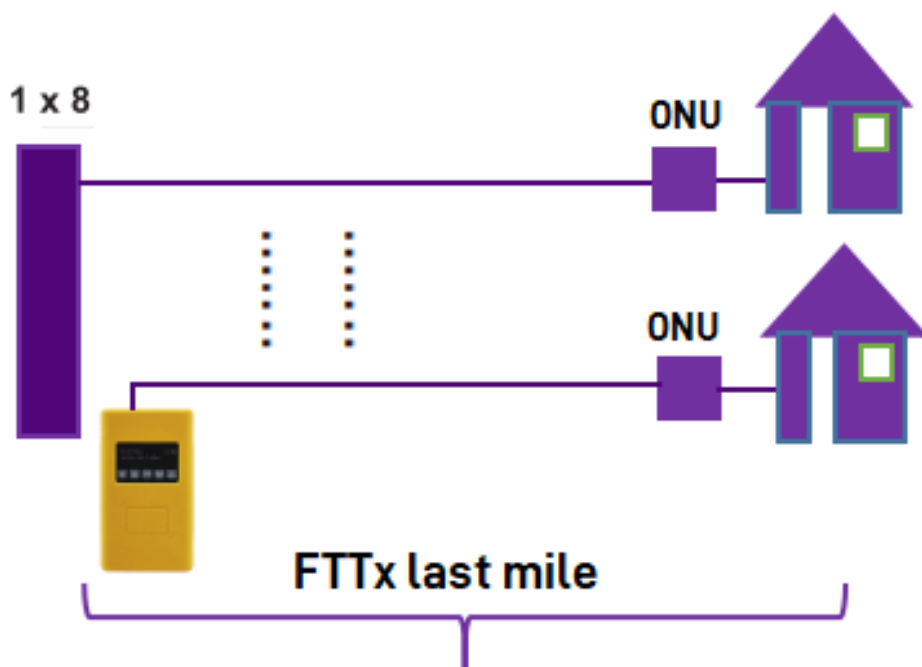


For non online ONU, FOH-100 PRO can be series connected after splitter to identify ONU status. Finally, a complete and correct splitter resource information table will be formed.

Splitter name	NAP port	Status	Detail	OLT	PON ID	SN	Password	1490nm	1310nm	Longitude	Latitude	Date Time
1:8 splitter	OUT/1	Occupied	onLine	ZTE	B001001	HWTC6a020a6		-1.70/-	-8.90/-	121.397002	31.163082	2022-03-16 14:53:57
1:8 splitter	OUT/2	Occupied	onLine	ZTE	B001001	STGUbb012345	00000001	-1.80/-	-13.60/-	121.397002	31.163082	2022-03-16 14:54:32
1:8 splitter	OUT/3	Occupied	onLine	ZTE	B001001	HWTC7e0a83a6		-1.80/-	-8.70/-	121.397002	31.163082	2022-03-16 14:54:50
1:8 splitter	OUT/4	Occupied	unRegister	ZTE	B001001	HWTC0650ca20	3400434zvs	-/-	-/-	121.397002	31.163082	2022-03-16 14:55:18
1:8 splitter	OUT/5	Occupied	offLine	ZTE	B001001					121.397002	31.163082	2022-03-16 14:58:38
1:8 splitter	OUT/6	Vacant		ZTE	B001001					121.397002	31.163082	2022-03-16 14:56:17
1:8 splitter	OUT/7	Vacant		ZTE	B001001					121.397002	31.163082	2022-03-16 14:56:19
1:8 splitter	OUT/8	Occupied	No ONU	ZTE	B001001					121.397002	31.163082	2022-03-16 14:59:49

High-precision OTDR for last mile fiber testing in FTTx

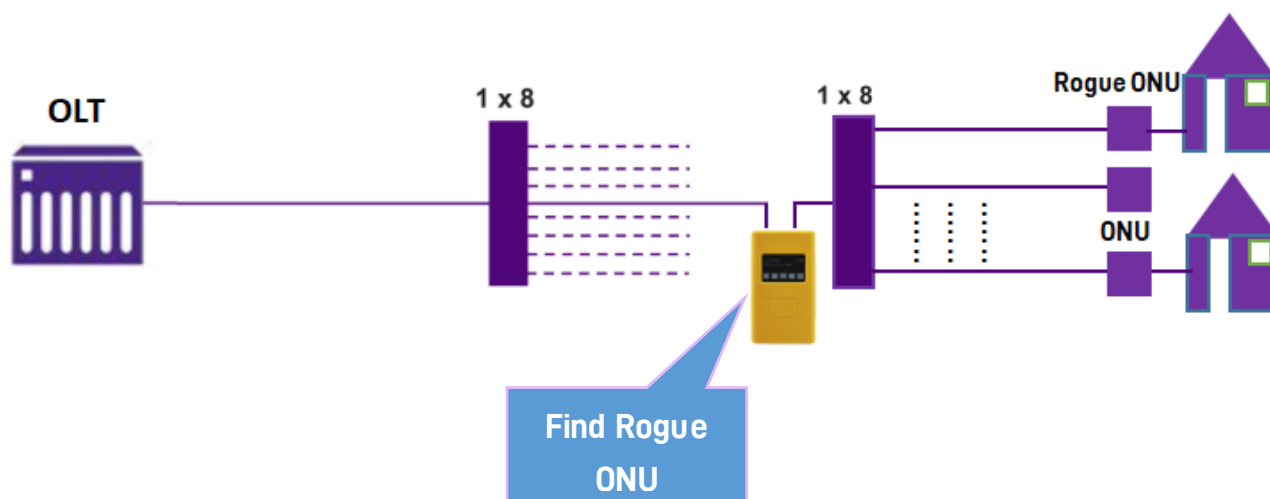
In the construction and maintenance of FTTH, most optical fiber failures occur in the last mile. At this time, field technician often do not need large dynamic OTDR, but only need short-range high-precision OTDR. FOH-100 PRO support testing from the splitter to the user's home to verify the fiber link quality.



(OTDR testing screenshot on FOH-100 PRO mobile phone app)

G/EPON service trouble shooting: Locate a Rogue ONU (Fast method)

A Rogue ONU is an ONU that fails to map correctly into its timeslot (TDM) and causes total network disablement of other neighboring ONU due to the time slot corruption. FOH-100 can locate rogue ONU to eliminate the bad influence on other ONUs in PON network.



Appearance:



Front side



Upper side (OLT port and ONU port)

Specifications:

Items	Specifications	
Model	FOH-100	FOH-100 PRO
Applicable PON network	GPON/EPON	
Test Mode	Series connect: Two ports pass through mode	
Insertion loss	No insertion loss, the optical signal power will be enhanced 3~10dB when FOH-100 series connect to the PON network	
Wireless	Bluetooth connection with Android phone app	
Protocol Analysis	OLT information: PON ID, OLT Tx power and class ONU information: Online ONU SN, Password, PPPOE	
ONU Status Identification	Online, ONU unregistered, Rogue ONU(100% accuracy) Offline, No ONU (60% accuracy)	Online, ONU unregistered, Rogue ONU(100% accuracy) Offline, No ONU, Fiber break (90% accuracy)
High-precision OTDR	—	Working wavelength:1550nm, Deadzone:2m/6m, Test range: 5km Dynamic range:>6dB
Rogue ONU detection	Support fast identification and location of rogue ONU before the first splitter	
PON Power Meter	1310nm: -30~ +5dBm; 1490nm: -30~ +5dBm	
Optical Interface	SC/UPC*2 or SC/APC*2	
Charging Port	USB Type-C charging port	
Power Supply	7500mAh lithium battery; Input: 5V/2A	
Working Temp	-10°C~50°C	
Humidity	5%~95%(no condensation)	
Dimension	175×94×46.5mm	
Weight	700g	

Notes:

- 1: The OLT information extraction needs to be activated in GPON OLT according to ITU-T G.984.3 Amd3
- 2: FOH-100PRO can identify the ONU status of "Offline/No ONU/Fiber break", the accuracy is >90% based on the UPC ONU fiber