VIAVI Solutions

Data Sheet

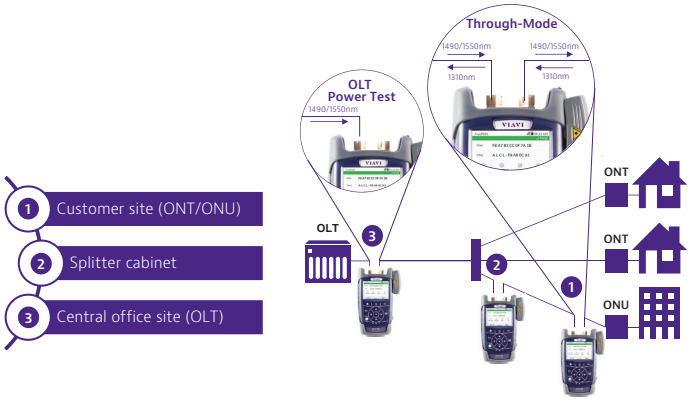
VIAVI

SmartClass™ Fiber OLP-88/-88P TruePON

Full-featured PON tester with fiber connector inspection

The VIAVI Solutions® OLP-88 TruePON tester is the ideal tool for field technicians dealing with GPON network service activation and for support teams charged with resolving service complaints and identifying the sources of issues. TruePON uses GPON data analysis for real-time measurement of fiber optic cable insertion loss, downstream and upstream power levels, ODN class, and for instantaneous identification of OLT-ID ONU/ONT-ID as well as rogue ONUs causing service issues.

The tester also inspects and certifies fiber end faces, critical steps that must be performed before making any fiber optic connection. With TruePON, technicians get ultimate flexibility and performance from a powerful, easy-to-use solution that instantly turns any user into a Fiber Smart technician.



Connect and perform measurements anywhere in your PON network

Key Benefits

- Ensures first-time-right GPON network acceptance
- Reduces workflow complexity during service activation
- Speeds on-site troubleshooting and facilitates service recovery
- Drives optimal user workflows and behaviors to eliminate issues caused by poor practices

Key Features

- Wavelength-selective, through-mode power meter for 1310/1490/1550 nm signals
- Automatic ODN class detection and power-level pass/fail analysis
- In-service loss measurements
- OLT identification; ONU/ONT serial number extraction; rogue and alien ONU detection
- Low-insertion loss (<1.5 dB)
- Automated pass/fail fiber inspection analysis with built-in patch-cord microscope or optional P5000i probe
- Easy generation of professional certification reports

Transforms GPON Service Activation and Troubleshooting

The comprehensive TruePON tester uses a new technology that enables precise GPON data analysis for faster, error-free service activations and advanced troubleshooting.

Its sophisticated data analysis:

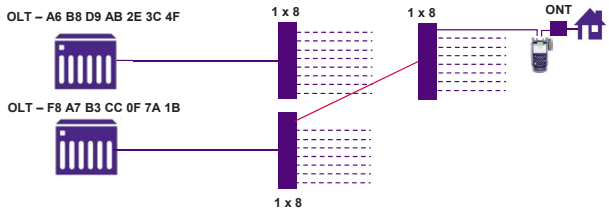
- Extracts GPON-specific data carried in the PON-ID standardized by ITU-T G.984.3 Amendment 3.
- Displays OLT transmitted power levels for in-service loss testing between an OLT and ONU/ONT*
- Identifies the ONU/ONT by serial number and rogue or alien ONUs/ONTs in any GPON system

Saves Time

TruePon minimizes or eliminates the time needed to configure jobs at the office prior to a work session. It lets you start testing right away, extracting all relevant information (thresholds, ONT serial number, OLT-ID) directly from data carried in the GPON signals*.

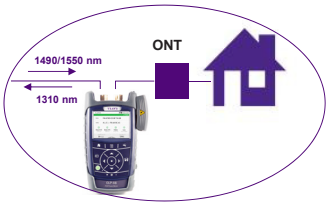
Improves Field Technician Efficiency

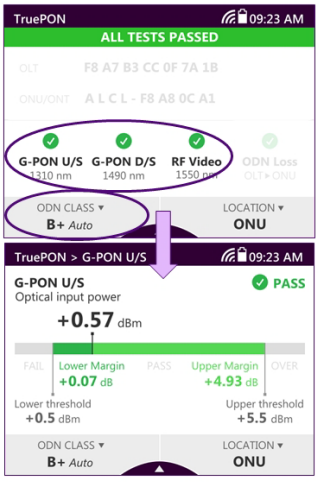
Absent or wrong labeling of fiber cables in splitter cabinets can lead to incorrect customer/ONT connections. TruePon ensures the ONT is connected to the right OLT by identifying the OLT-ID carried by the PON-ID at any network location*.



Certifies Power Levels Automatically

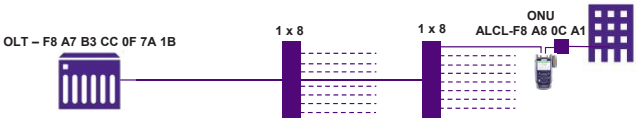
When verifying power levels at a customer ONT, TruePON certifies that the service meets specifications by performing a fully automated power level certification. It performs downstream and upstream PON power level measurements (1310/1490/1550 nm) and automatically sets pass/fail thresholds in systems with PON-ID*.

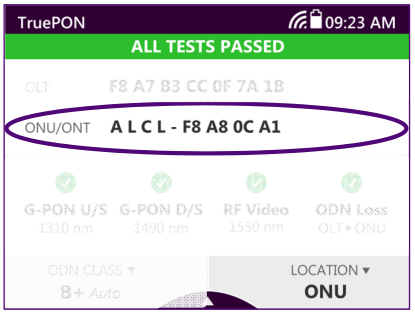




Eliminates Human Errors While Ensuring Reliable Results

Service-activation is often performed by subcontractors who are dealing with hundreds of customer turn ups. To make sure test reports are error-free and authentic, TruePON analyzes GPON data to extract and display ONU/ONT serial numbers. It allocates ONU/ONT serial numbers according to the customer service contract, and automatically links service-activation results to the ONT/customer—ensuring the authenticity of test results.

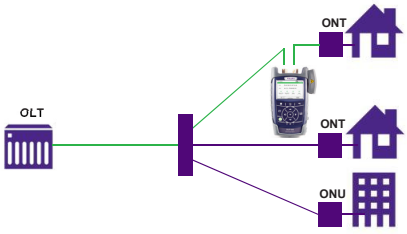


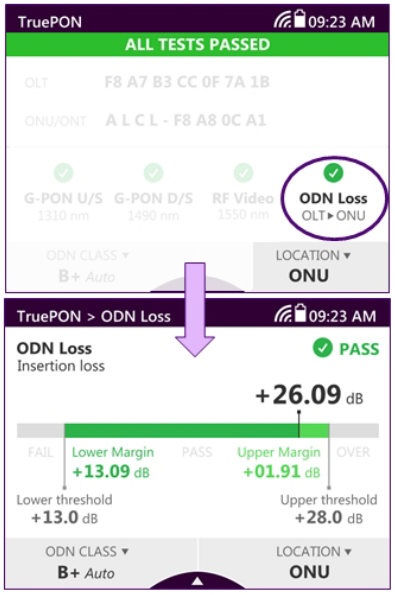


* Requires activation of PON-ID functionality in G-PON systems according to ITU-T G.984.3 Amd3.

Qualifies In-Service Fiber Plant

During the construction phase, the fiber plant is qualified; end-to-end loss testing ensures that the fiber link complies with the loss budget. However, several years later, when new customers subscribe to the FTTH services, performance may not be intact. TruePON performs real-time, in-service, end-to-end loss measurements*. It is the fastest way to qualify fiber links in an already-running network.



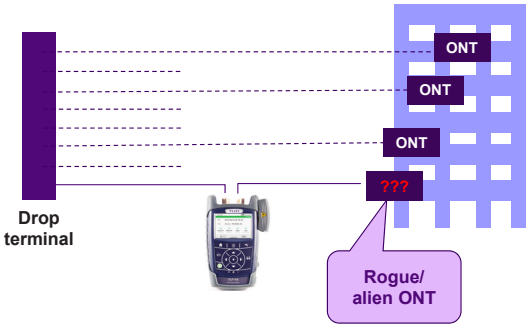


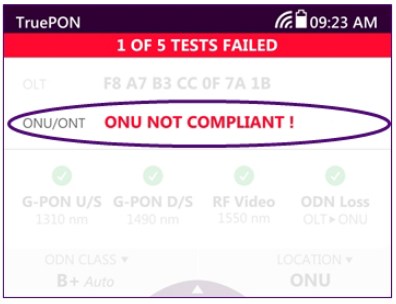
Stands Up to Harsh Field Conditions

Compact and lightweight (<1 kg), TruePON is a ruggedized tool for field technicians working indoors and outdoors. It runs for up to 12 hours on battery power, and is easy to operate using a simple and user-friendly color touch-screen display. TruePON stores up to 10,000 test results and connects to efficient StrataSync™ test-data management via USB, Ethernet, and WiFi interfaces. It also includes an APC connector with a switchable adapter system.

Facilitates Fast Service Recovery

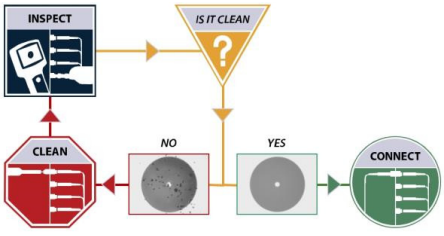
Identifying and localizing a rogue ONU that degrades or disables customer service can be difficult. TruePON instantaneously detects the presence of a rogue or alien ONU/ONT, facilitating fast service recovery by isolating the faulty ONU/ONT for quick replacement.

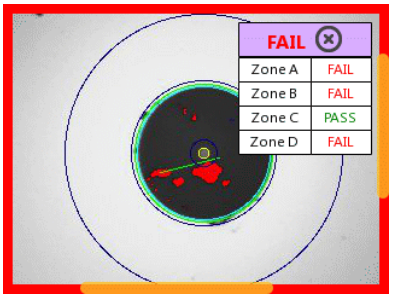




Drives Best Practices

More than 75% of fiber network troubleshooting can be attributed to connector contamination. TruePON, optionally equipped with a built-in patch-cord microscope, helps ensure that fiber technicians follow best practices. It integrates automatic pass/fail certification for fiber connectors for optimal user workflows and behaviors that eliminate poor practices.





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The SmartClass Fiber Product Family

✓ **Integration** — combines inspection and testing

✓ **Automation** — pass/fail certification

✓ **Ease of use** — intuitive touch-screen user interface

SmartClass Fiber tester with P5000i analysis microscope

SmartClass Fiber tester with patch-cord microscope

SmartClass Fiber tester with P5000i and patch-cord microscopes

OLP-37 PON/RFOG Power Meter

- Power level measurements of 1490/1550/1610 nm downstream signals

OLP-37X G/XGS-PON Power Meter

- Power level measurements of 1490/1577nm downstream signals

OLP-87 PON/ XG-PON Power Meter

- Power level measurements of 1490/1550/1578 nm downstream and 1270/1310 nm upstream signals
- Fiber connector inspection

OLP-87 NG-PON2 Power Meter

- Simultaneous selective power level measurements of 1596.34/1597.18/1598.04/ 1598.89 nm downstream and 1595–1603 nm upstream signals
- Fiber connector inspection

OLP-88 TruePON Tester

- Power level measurements of 1490/1550 nm downstream and 1310 nm upstream signals
- ONT/OLT/ONU identification
- Detection of alien/rogue ONU/ONTs
- In-service loss testing
- Fiber connector inspection

Specifications

Feature	Availability
Two-port through mode for upstream and downstream power level measurements[1]	Downstream OLT signal (1490 nm) Upstream ONT signal (1310 nm burst mode) Downstream RF video signal (1550 nm)
G-PON Data Analysis	
Identification of ONU/ ONT serial numbers[2]	Included
ODN class detection and auto threshold setting[3]	GPON-ID software option
In-service insertion loss test with auto pass/fail analysis[3]	GPON-ID software option
OLT identification[3]	GPON-ID software option
Detection of alien/rogue ONUs[2]	Alien/rogue-ONU detection software option
Fiber Inspection	
With external probe	P5000i option
With integrated patch cord microscope	OLP-88P version

1. For B-PON (ITU-T G.983.x), E-PON (IEEE 802.3), G-PON (ITU-T G984.x) signals.
2. For G-PON signals according ITU-T G.984 (without PON-ID.
3. Optional for G-PON signals according ITU-T G.984.3 Amd3.
4. Burst mode: –35 to +13 dBm.
5. At 23°C ±3°C, at 1310/1490/1550 nm, at –7 dBm.

FTTx Measurements		
Power		
Upstream ONT signal (1310 nm)[4]	Power measurement range	–40 to +13 dBm[4]
	Maximum permitted input level	+17 dBm
	Spectral passband	1290 to 1330 nm
Downstream OLT signal (1490 nm)	Power measurement range	–40 to +7 dBm
	Maximum permitted input level	+9 dBm
	Spectral passband	1480 to 1500 nm
Downstream RF video signal (1550 nm)	Power measurement range	–40 to +26 dBm
	Maximum permitted input level	+27 dBm
	Spectral passband	1550 to 1560 nm
G-PON Data Analysis at 1490 nm		–30 to +7 dBm
Display resolution		0.01 dBm/0.001 µW
Display units/information		dB, dBm, with pass/fail
ORL		>60 dB
Threshold sets		ITU-T G.984.3 or user-specific thresholds
Pass-through insertion loss[5]		<1.5 dB
Power uncertainty[5]		±0.5 dB
Calibrated wavelengths		1310/1490/1550 nm

Specifications

General		
Display		High-contrast 3.5 in color LCD with touch-screen functionality
Fiber inspection capability		With patch-cord microscope or external P5000i microscope (optional)
Data memory		Up to 10,000 PON results
Data readout		Via client USB interface
Electrical interfaces		2 x USB host, 1x micro USB, Ethernet
Wireless interface		WiFi client (optional)
Power supply		12 V, 2 A with interchangeable wall plug for EU, UK, US, and AU
Battery		Li-ion pack 3.7 V, 20 Wh
Battery life (Li-ion battery pack)		>12 hr
Optical connectors		APC with SC switchable adapters (FC, ST and LC adapters optional)
Recommended recalibration interval		3 years
Dimensions (H x W x D)/Weight	OLP-88	208 x 112 x 64 mm; 750 g (8.2 x 4.4 x 2.5 in; 1.6 lbs)
	OLP-88P	208 x 153 x 64; 850 g (8.2 x 6.0 x 2.5 in; 1.85 lbs)
Operating temperature range		–5 ˚ to +45 ˚C (23 ˚ to 113 ˚F)
Storage temperature range		–25 ˚ to +55 ˚C (–13 ˚ to 131 ˚F)

Ordering Information

All OLP-88 and -88P TruePON testers include:

- APC connector and SC optical adapter (x2)
- SC2 soft shoulder case
- Quick-start manual and safety instructions
- RBP2 rechargeable LiON battery pack (3.7 V, 20 W) and PS4 power supply (12 V, 2 A)

Description	Part Number
OLP-88 TruePON tester, 1310/1490/1550 nm	2327/36
OLP-88P TruePON tester with patch-cord microscope, 1310/1490/1550 nm	2328/36
Software Options	
OLP-88 alien/rogue-ONU detection	2327/94.01
OLP-88 GPON-ID test	2327/94.02
Hardware Options	
WiFi option including USB WiFi adapter	2327/90.21
Accessories	
P5000i digital analysis microscope with 4 tips (FBPT-SC, FBPT-LC, FBPT-U25M, FBPT-U12M)	FBP-SD101
ST switchable optical adapter for OLP-88	2155/00.32
FC switchable optical adapter for OLP-88	2155/00.05
LC switchable optical adapter for OLP-88	2155/00.07
Kit, RBP2 rechargeable battery (Li ion) and FBPP-PS4 power supply (12 V)	FITP-RCG1
Power supply for SmartClass Fiber (12 V)	FBPP-PS4
Rechargeable battery for SmartClass Fiber (Li ion)	FITP-RBP2
UC4 hands-free carrier for SmartClass Fiber	FITP-UC4
UC4P hands-free carrier for SmartClass Fiber with PCM	FITP-UC4P
SCASE2 soft shoulder case for SmartClass Fiber tools	FBPP-SCASE2

VIAVI Care Support Plans

Increase your productivity for up to 5 years with optional VIAVI Care Support Plans:

- Maximize your time with on-demand training, priority technical application support and rapid service.
- Maintain your equipment for peak performance at a low, predictable cost.

For more Information: go to viavisolutions.com/viavicareplan

Features

*5-year plans only

Plan	Objective	Technical Assistance	Factory Repair	Priority Service	Self-paced Training	5 Year Battery and Bag Coverage	Factory Calibration
BronzeCare	Technician Efficiency	Premium	✓	✓	✓		
SilverCare	Maintenance & Measurement Accuracy	Premium	✓	✓	✓	✓*	✓

VIAVI Solutions

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