

OneAdvisor 800 Transport

Field-Optimized Network Test Tool Up to 400G



Modular test platform designed for use in the installation and maintenance of fiber, wireless and transport applications.

The VIAVI OneAdvisor 800 is the first test tool designed to address the challenges of a modern network field technician. By rolling all the key test capabilities into one portable tester and combining it with easy-to-use test process and reporting automation, VIAVI has equipped wireline and wireless service providers, equipment manufacturers, system integrators, and contractors to meet the work-speed and test coverage requirements for telecommunication networks buildouts and maintenance.

Key Features and Benefits

- Extended modularity; dual-bay, detachable or plug-in (via Module carrier) capability that can be combined.
- Job Manager for workflow automation for seamless job between all test functions– Enabled by cloud base StrataSync service.
- SAA (Smart Access Anywhere) for Remote Access and coaching.

Measurements

- RF Spectrum Analyzer and Signal Analyzer for 4G and 5G.
- Singlemode and multimode OTDR.
- DWDM OTDR.
- Bi-directional Optical Loss and ORL Test.
- Optical spectrum analysis.
- DWDM optical channel checker.
- Broadband optical Power level.
- Connector end face inspection.
- Ethernet and protocol testing.
- RF power sensor.
- Cable and Antenna Analyzer.



General Information

Inputs and Outputs	
USB	2x USB 2.0 Host
Memory Card	1x micro SD
LAN	RJ-45, 1000 Base-T
Audio	Built-in speaker 1x USB-C for Audio output
Display	8", 1280 x 800 resolution
Power	
Connector	Rectangular DC Jack
External DC Input	19 VDC
Power consumption	Mainframe: 10.8W (w/ 70% brightness setting)
Battery	
Type	14.4 V, 6800 mAh (Lithium ion)
Operating time	MF (mainframe) only: > 8hrs
Charging time	100 % charging
	Standard (one battery): > 2:2 hrs
	Up to 80 % charging
	Standard (one battery): > 1:40 hrs
Charging temperature	0 to 45°C (32 to 113°F) ≤ 85% RH
Discharging temperature	-20 to 55°C (-4 to 131°F) ≤ 85% RH
Storage temperature	-20 to 60°C (-4 to 140°F)
Operating Temperature	
0 to 40°C (32 to 104°F)	AC Power with battery charging
-10 to 55°C (14 to 131°F)	Battery discharging condition
Storage temperature	
-20 to 60°C (-4 to 140°F)	
Maximum humidity	
95% RH (noncondensing)	
Memory	
Internal	6.2 GB total, shared by system memory

Managing your workforce, tasks and test data

Test Process Automation (TPA) allows your team to deliver expert-level test results and close projects on the first try, every time. TPA is a closed loop test system that optimizes workflows, eliminates manual, error prone work and automates immediate data reporting for job close out, team progress updates and network health analytics. Execute jobs efficiently to ensure high quality network builds, rapid turn-up/activation, and enhanced operational visibility.

External	Micro-SD: up to 32GB USB flash memory: limited by size of the flash drive Supported file system: FAT, FAT3, ext4
Environmental	
Shock and Vibration	MIL-PRF-28800F
Bench handling	MIL-PRF-28800F
Drop	MIL-PRF-28800F ETSI EN 300 029-2-7
EMC	IEC/EN 61326-1 FCC part 15B ICES-003
Size and weight (Mainframe)	
Weight	2.0 kg (4.4 lb) without module (including battery)
Size (W x H x D)	270 x 170 x 60 mm (10.6 x 6.7 x 2.3 in) without module
Size and weight (Fiber module receptacle)	
Weight	0.8 kg (1.7 lb) without test module
Size	(W x H x D) 270 x 170 x 50 mm (10.6 x 6.7 x 2 in)

ONA-PMVFL

Power Meter	
Power Level	+10 to - 60 dBm
Calibrated wavelength	850, 1310, 1550nm
Connector type	Universal push/pull (UPP)
Visual Fault Locator	
Wavelength	650 nm +/- 15nm
Output power level	< 1mW
Laser safety	Class 2 laser



Platform Ordering Information

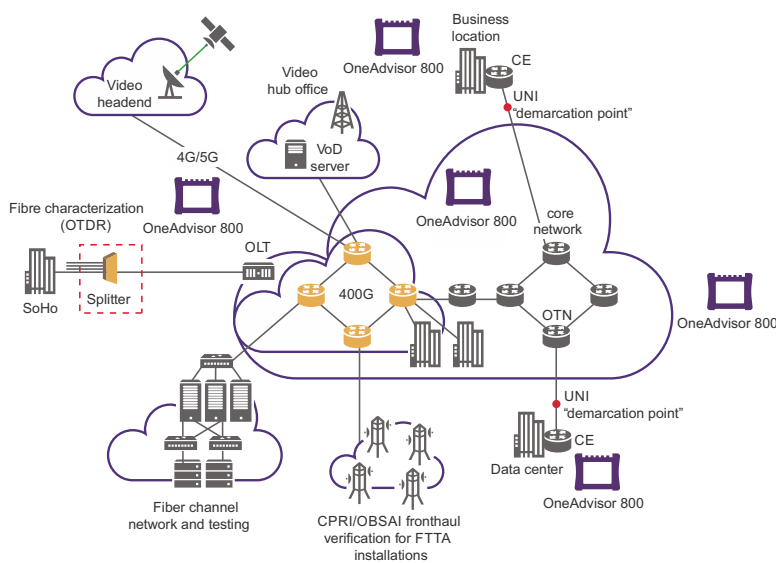
Part	Description
ONA-800A-MF2, ONA-800A-MF2-F, ONA-800A-MF2-T	OneAdvisor 800 Mainframe with Display
ONA-800A-MF2G-T	OneAdvisor ONA-800A Mainframe with Display - no WiFi and Bluetooth Radios
Solution Hardware Modules	
E81FMC1	Fiber module receptacle for E8100-series fiber modules
Software Options for OneAdvisor Platform	
ONA-MF-BT	Bluetooth connectivity
ONA-MF-WIFI	WiFi connectivity
SAA-ADVISOR	Smart Access Anywhere for CellAdvisor Products
Accessories for OneAdvisor Platform	
FBP-SD101	Kit FBP-P5000I Digital Probe FiberChekPro SW Case And Tips
FIT-FC-KIT3	Kit FiberChek Autofocus WiFi Microscope Tips for LC/PC SC/PC and SC/APC Case
G700050125	120 watts DC to DC car cigarette lighter charger adapter
G700050127	OneAdvisor 800 AC/DC Power Adapter 160 W 19 V
PS-330W24V	OneAdvisor 800 AC/DC Power Adapter 330 W 19 V
G700050150	Internal Lithium-ion Battery (92 Wh, 8A)
BAT-96WHR	High Power Internal Lithium-ion Battery (92 Wh, 10 A); ONA-MF2-PEM Power Expansion Module (Additional Lithium-Ion Battery)
ONA-MF2-PEM	Power Expansion Module (Additional Lithium-Ion Battery)
G700050701 ONA800-T-HARDCASE	OneAdvisor Hard carrying case with wheels for full sized modules (large with dividers)
G710550324	External Battery Charger
Jd70050342	Hard Carrying Case With Wheels
EBACKPACK-CASE1, ONA800-T-SOFTCASE	Backpack/large soft carrying case for T-BERD/MTS mainframes and OneAdvisor 800
ONA-800A-BP	Backpack for RF walk test with antenna hook
MP-60A	USB Optical Power Meter with Accessories
ONA-800A-BC	OneAdvisor Back Cover
ONA-800A-HN EHARNESS	OneAdvisor Harness
C2K-EMPTYMOD	Empty module to cover an unused expansion port
ONA-800A-DISPL ONA-800A-DISP-F ONA-800A-DISP-T	OneAdvisor Display
ONA-PMVFL	Power Meter and VFL Mainframe Module for OneAdvisor 800

OneAdvisor 800 Transport

Field-Optimized Network Test Tool Up to 400G

The OneAdvisor 800 delivers all the test capabilities technicians and engineers need to install and maintain high-capacity networks up to dual 400G. Its portability and modularity make OneAdvisor 800 perfectly suited for metro/core, data center interconnect, and business services testing. The OneAdvisor 800 400G supports concurrent dual port testing up to 400GE and features the same user interface as all in the T-BERD/MTS Family.

The OneAdvisor 800 is designed to meet the challenges that network operators and datacenters face now that 400GE technology has made its way downstream from the lab to field deployments. No longer in temperature controlled, laboratory environments, 400GE test devices in the field must be rugged and portable and run cool without sacrificing key test features and measurement accuracy.



Key Benefits

- **Industry-Leading Expandability.** Tests fiber (OTDR, OSA) and all Ethernet rates single or dual port (400, 200, 100, 50, 40, 25, 10, and 1).
- **Superior Battery Life.** Scalable to multiple batteries which enables hours of unconnected use.
- **Unmatched Cooling.** Best in class for 400G portables – easy to cool ZR/ZR+ pluggables.
- **Conveniently Portable.** The smallest dual-400G capable test unit on the market.
- **Broad Test Coverage.** Modularity delivers all-in one solution across lines rates and protocols.
- **Multiple Optics Support.** QSFP-DD/QSFPx, OSFP, SFP-DD/SFPx enabled, and full coherent optic support.

Key Features

- **Future-Proofed.** Test new and future technology including PAM4, NRZ and Forward Error Correction. Covers unique rates such as 50GE and 64GFC on SFP56 optics.
- **Consistent Results.** Scripted workflows that drive test consistency across users; QuickCheck, RFC 2544, OTN Check, Optics Self-Test, AOC/DAC/AEC Cable Test.
- **Modular Flexibility.** Pairs with many VIAVI test modules including OTDRs, WDM Checker/OSA modules, which enable the testing of wired networks, radio access networks (RAN), and network timing and synchronization.
- **Comprehensive.** Tests devices (transport equipment, Ethernet switches, routers), networks, pluggable optics, and AOC/DAC cables.

The OneAdvisor 800 with 400G Transport Module is the industry's most integrated and compact tool for up to 400Gbps testing. This solution provides full rate coverage to address service activation, troubleshooting, and maintenance. The 400G Transport Module provides optics coverage for QSFP-DD/QSFPx, OSFP and SFP-DD/SFPx. In addition, the OneAdvisor 800 integrates fiber optic testing with OTDRs, OSAs and can also be combined with 5G RF testing in one.



Comprehensive Coverage

The OneAdvisor 800 provides modularity with the following attributes:

- Modular base unit with large 8-inch, multi-touch display
- Integrated WiFi, and Bluetooth to wirelessly transfer results. For secure environments, units are available without any WiFi/BT
- Expandable with up to two modules on the back of the unit. Examples include OTDR, OSA/Channel Checker, Timing Expansion Module, Power Expansion Module.
- Scalable battery support which includes a battery in the base and optionally Power Expansion Modules (PEM)
- SmartAccess Anywhere provides easy device access from an Android device, IOS or PC
- Cloud-base StrataSync™ for results collection, data management, and device tracking
- Support of VIAVI Fiber inspection tools and an optional integrated power meter and VFL module
- Stackability of full-size modules to potentially add a Fiber Module Carrier to support dispersion testing or high dynamic range OTDRs/OSAs

400G Transport Module

Both variants of this module provide dual-port testing and broad support of multiple interface types with a built-in GNSS receiver for future expansion. The test interfaces include QSFP-DD (2 ports on TM400GB-QQ), OSFP on the TM400GB-QO version, and two SFP-DD physical ports. The reporting of full power consumption is available for all optics types. Capabilities feature native PAM4 and NRZ with CMIS and electrical pre-emphasis support.

The 400G Transport Module provides strong support for ZR/ZR+ optics with laser tuning and grid granularity. Further, multiple coherent errors and statistics are provided. Supported rates are 400GE, 200GE, 100GE, 100GE KP4, and 4x100GE.

The 400G Transport Module provides the following Ethernet rates: 400GE, 200GE, 4x100GE, 100GE with no FEC, RS (528,514) FEC or full KP4 RS (544,514) FEC, 50GE on SFP56, 40GE, 25GE (FEC or bypass), 10GE; 1GE and 10/100/1000. It also supports OTU4, OTU3, OTU2e, OTU1e, OTU2, and 64G Fibre Channel and provides a loopback capability to help test AOC (Active Optical Cable) and DAC (Direct Attach Cable) cables for data center applications.



TM400GB-QQ

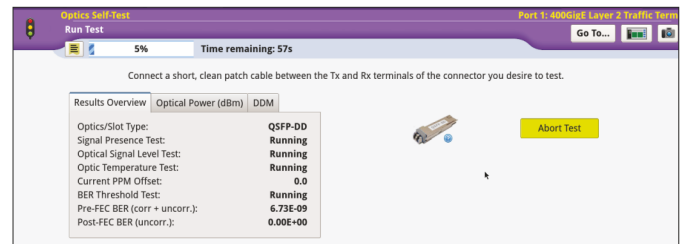


TM400GB-QO

Capabilities include:

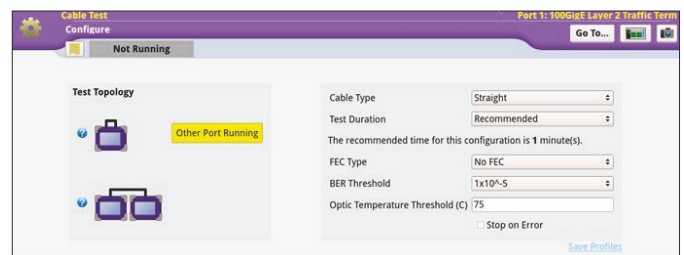
- Dual-port testing up to 400GE. For rates up to 200GE, it is possible to reload a port independently without affecting a test running on the other port; this provides any port, any rate, any time.
- Testing using 400GE, 200GE, 100GE and 4x100GE ZR/ZR+ pluggable modules. Can set the transmitter to different channel/wavelength/ frequency values and optical power levels. Reporting of coherent receiver statistics. Support of grid granularity down to 3.125GHz.
- Support of up to 4 VLAN tags y Full line rate bandwidth including Ethernet burst testing. Support of layer 2 and layer 3 IPv4 testing including ARP, DHCP and Ipv6.
- Packet capture and decode.
- Selection of frame sizes up to 16,000 bytes including random distribution and EMIX.
- RS (544,514) FEC testing for correctable errors up to 15 symbols and uncorrectable errors. Monitoring of high BER rates with a user settable alarm threshold. As applicable, support of RS(528,514) FEC.
- Support of a 4x100GE application with 4 independent 100GE engines.
- Key Performance Indicator testing using ATPv3 which provides real-time frame loss, out-of-sequence, latency, and packet jitter measurements.
- Run Ethernet tests with up to 16 parallel streams
- Bit Error Rate testing using PRBS patterns in Ethernet frames. Multi-lane unframed BERT is available as an option. Multiple rates are supported for both PAM4 and NRZ. Support includes full lane independence, per lane pass/fail thresholds, usage of optical pluggables or VIAVI's electrical 402-090.01;QSFP-DD 8x50G PAM4 Electrical Adapter.
- Optics Self-Test for QSFP-DD, OSFP, and SFP devices. Includes pre-FEC and post-FEC BER results with pass/fail results based on BER theory, PPM offset testing, and temperature monitoring.
- Control of QSFP-DD devices and registers via expert mode. This includes pre-emphasis and per register access and dump to file. Selection of application codes for CMIS pluggables. Support of both CMIS and SFF8636 devices.
- Ethernet level testing including QuickCheck, RFC 2544, and Y.1564 SAMComplete™.
- Selection of host interface based on NRZ (100GAUI-4) or PAM4 (100GAUI-2) for 100GE pluggable devices.
- Cable Test for AOC, DAC, and AEC cables. Support of a QSFP loopback function to test straight and breakout cables with a single module.

This tool features a recommended test duration calculation based on a target BER. The tool, included with each line rate, monitors information such as optical power and provides a temperature threshold setting.



Testing with Cable Test

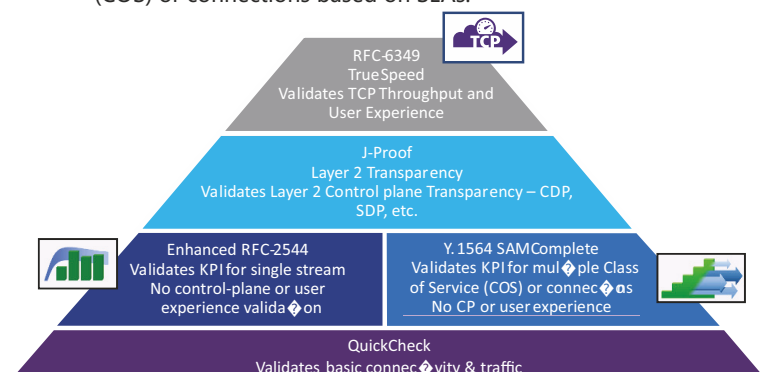
Cable Test is a workflow tool to troubleshoot sample test AOC/DAC/AEC cables. It applies to optical and copper cables including straight and breakout versions. On OneAdvisor 800, there is a layer 1 loopback feature which enables the testing of multiple cable configurations using a single module. Cable Test verifies multiple parameters in testing cables, the key parameter to help determine the pass/fail criteria is Bit Error Rate (BER); for Ethernet rates using FEC such as 400GE, both pre-FEC and post-FEC results are available.



Time-Saving Ethernet Service Activation

Test more quickly and efficiently using automated tests on OneAdvisor.

- QuickCheck — a fast, automated test that validates end-to-end configurations; runs as a pre-check test before RFC 2544 or Y.1564 or as a stand-alone test.
- Enhanced RFC 2544 — an automated turn-up test with built-in time efficiency for validating key performance indicators (KPIs), concurrently measuring throughput, frame delay, and frame delay variation in addition to frame loss and committed burst size (CBS).
- Y.1564 SAMComplete™ — An automated service verification test that speeds the verification of multiple classes of service (COS) or connections based on SLAs.



Troubleshooting with Optics Self-Test

Optics Self-Test is a workflow tool to identify and troubleshoot performance issues related to pluggable optics. It is especially well-suited to field environments where pluggable optics issues are difficult to isolate. It is available on QSFP-DD, QSFPx, SFPx.

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Quality Testing

Our products undergo rigorous quality testing before shipment to ensure their excellence.



Packaging

We meticulously package our products to guarantee they arrive at their destination in pristine condition.



Transport

We prioritize swift transportation, minimizing your waiting time to receive your order promptly.



Delivery

Our delivery service is designed to bring the products you've ordered directly to your doorstep, tailored to your specific preferences.



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Please note that product specifications, size, and shape are subject to change without prior notice. As a result, the actual appearance of the product may vary from what is shown in the picture. However, we take pride in our ability to customize products to meet unique specifications, ensuring utmost customer satisfaction.

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