VIAVI

DWDM Test and Monitoring Solutions for MSOs
OTDR and spectrum analysis test solutions to deploy, maintain, monitor and troubleshoot fiber deep and DAA networks

The VIAVI DWDM OTDR Module, DWDM OCC-4056C channel checker module, OCC-56C channel checker handheld, OSA-100 and ONMSi solutions enable cable operators and contractors to perform complete end-to-end link verification, monitoring and troubleshooting of DWDM networks.

**Easy to use**

Whether it’s Fiber Deep, Node+0, Remote PHY, Distributed Access Architecture (DAA), RFoG, or PON, cable MSOs are pushing fiber deeper into their networks to meet customers’ demands for more bandwidth. More often, they are turning to dense wavelength division multiplexing (DWDM) to get the most out of their fiber investment. DWDM allows an MSO to increase bandwidth and users by adding wavelengths to already existing fiber.

The VIAVI E41DWDMC OTDR module, OCC-4056C channel checker module, OCC-56C DWDM channel checker, and OSA-110 Full-spectrum OSA module are very portable, easy-to-use tools for technicians in the headend, hubs, or out at the nodes. While the DWDM module for the ONMSi fiber monitoring solution allows service provider to monitor live DWDM for signs or degradation or failure. Whether constructing, provisioning, monitoring or maintaining the network, the VIAVI DWDM portfolio has what you need.

**Benefits**

- High performance single-ended test tools to qualify and troubleshoot Access DWDM networks through MUX(s) and DEMUX(s)
- Deliver right-first-time deployment during construction
- Tunable laser source at DWDM wavelengths always standard
- Mainframes supported by StrataSync, a VIAVI asset and data management Cloud application
- Monitor and test DWDM links on demand and get real time alerts with fault location data

**Applications**

- Validating new WDM routes for new nodes or capacity increases
- Verifying end-to-end continuity prior to service turn-up
- Troubleshooting faulty links without disrupting services
- Monitor live DWDM links via unused DWDM wavelength
- Verifying presence, power levels, and OSNR of DWDM channels

<table>
<thead>
<tr>
<th>OCC-56C DWDM Channel Checker</th>
<th>T-BERD/MTS-6000A with OSA-110 Module</th>
<th>T-BERD/MTS-4000 V2 with DWDM OTDR module and DWDM Optical Channel Checker Module</th>
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<tr>
<td>OTU-8000/ONMSi for DWDM link monitoring and remote test on demand</td>
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Right tools for the Job

Whatever phase in the life of the network, the ability to measure link loss, channel strength or OSNR, and identify and locate fiber events is crucial. The job must be quick to do and easy to interpret, as well as easy to carry around.

Construction

Perform a complete end-to-end link characterization through MUX/DEMUX for all wavelengths to certify the network build and validate performance criteria.

Wavelength Provisioning

Test and verify specific DWDM wavelengths and routes without interrupting existing services to ensure network and service performance. Turn on channels and verify their signal strength to ensure maximum QoS for your new customers.

Monitoring and Troubleshooting

Avoid incurring SLA penalties; investigate and fix faulty links without disrupting traffic on active channels and avoid excessive network downtime or maintenance windows. Identify weak channels on the link.

<table>
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<tr>
<th>Part Number Description</th>
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<tr>
<td>E41DWDMC-PC/-APC DWDM OTDR Module with tunable laser source, PC/APC connector C-Band tunable from channels 12-62 (1567.95nm - 1527.99nm) – 50GHz/100GHz/200GHZ channel spacing. Requires T-BERD/MTS 2000, 4000, 5800 or Cell Advisor 5G mainframe.</td>
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<tr>
<td>2331/12 OCC-4056C DWDM Optical Channel Checker module with SFP/SFP+ bays, C-band, APC, SC mounted FC enclosed. Requires T-BERD/MTS 2000, 4000, or 5800 mainframe.</td>
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<tr>
<td>OSA-110M/H Full-band compact OSA modules +23 dBm (-110M) or +30 dBm (-110H) versions. Requires TB6000 mainframe.</td>
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<tr>
<td>OCC-56C (2277/44) Handheld DWDM channel checker covers channels 16-61 (1564.68nm -1528.77nm), 100/200 GHz spacing</td>
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ONMSi Optical Network Management Solution

ONMS software plus hardware Fiber Test Head OTU-8000 with DWDM module

For more information on ONMSi and OTU8000 or T-BERD-2000, -4000, -6000 test platforms or individual modules, refer to their respective data sheets.