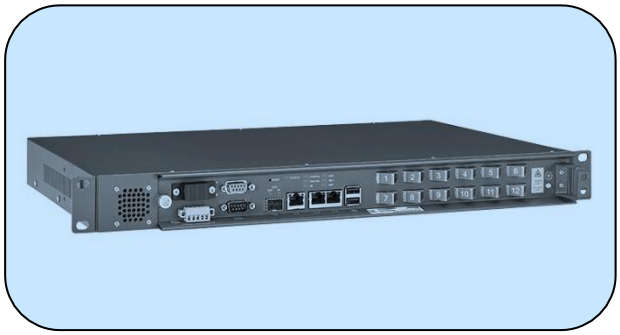
Optical Fiber Monitor (OFM) Whitebox



Features

- In-service monitoring of fiber spans up to 80 km
- Automated fault detection and fault location with alarm capability and detailed span trace
- On-demand measurement and analysis is available
- 12 independent optical fibers monitored per chassis
- Exports data to Telcordia SR-4731 compatible SOR format
- User User-friendly graphical user interface for commissioning and maintenance
- Easy integration with third party GIS and OSS solutions

Compliance

- FCC Subpart 15 (Class A)
- IEC 60825-1:2014 Laser Class 1
- UL 60950 3rd Edition, December 2000
- CAN/CSA-C22.2 No. 950-95
- RoHS

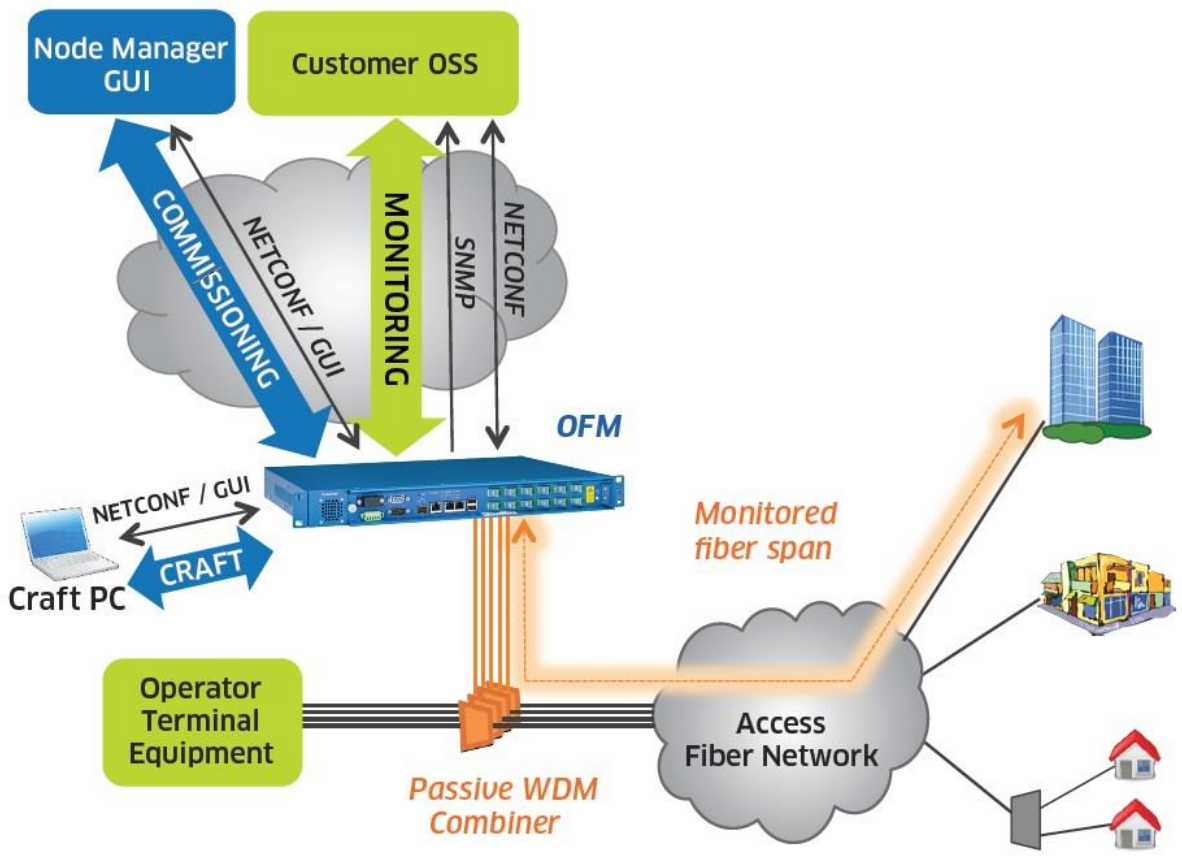
Description:

Detecting and locating network fiber outages by conventional means is a time consuming manual process. Correlating alarms, dispatching personnel and testing may require hours of cross-disciplinary effort before a fault can be located and repair teams dispatched.

The OFM Whitebox leverages XenOpt award-winning Optical Whitebox platform to combine an open northbound interface for integration with existing Geographic Information System (GIS) and Operations Support System (OSS) solutions.

The OFM detects link degradation and faults over user-defined spans and thresholds and returns high-resolution fault location measurements to the network operations center. Faults are geo-located within minutes.

Featuring a powerful, easy to use configuration interface, the OFM Whitebox may be deployed in a range of applications for in-building and access/metro fiber networks.



Network Management Integration

XenOpt Whitebox is a NETCONF-enabled device, designed for ease of integration with third party SDN controllers. Highlights of the NETCONF management interface are as follows.

- A secure connection layer — support for NETCONF over SSH
- RADIUS client support for SSH authentication and user accounting
- SFTP client support for file transfers, including OTDR measurements and firmware upgrades
- Simplified configuration commands support immediate writes to the running-configuration
- Validation capability is provided to test and validate configurations before applying them.

In addition, two other management interfaces are available.

- An intuitive multi-platform GUI application for technician turn-up and debugging
- IETF SNMP trap adapter and MIB for alarm ticketing.

Technology Differentiation

As the leading global ODM supplier of highly integrated optical products to Network Equipment Manufacturers (NEMs), XenOpt has R&D experience and manufacturing scalability that is unmatched among optical technology suppliers.

XenOpt vertically integrated product portfolio of optical components and subassemblies allows us to optimize cost and density.

Specifications

Chassis Features

Parameter	Specification	
Dimensions (HxWxD)	1.75 (1RU) x 17.4 x 10 in	4.45 x 44.2 x 25.4 cm
Supported rack types	19” EIA, 300mm ETSI	Front access
Management LAN connectivity	10/100/1000BaseT Ethernet	RJ-45 or 100/1000Base Optical SFP
Local access	RS-232 serial 115,200 baud	Female DB-9
Optical connectors	SC/APC 8 degree angle polish	9/125 G.652 single mode fiber
LEDs	3 LEDs for chassis status summary	
	1 LED for chassis identification	
	Link/Status LEDs per RJ-45 Ethernet port	
	TX/RX Status LEDs for OSC port	
Telemetry alarm	3 dry contact alarm connections (Critical, Major, Minor) to male DB-9	
Power entry	Redundant -48V DC front access with individual fuses	
Cooling	Field replaceable fan unit, accessed from front	Airflow front-to-back or left-to-right

Optical Specifications

Parameter	Specification	
Optical monitoring ports	12	
	Minimum	*Maximum*
Out-of-band monitoring wavelength	1620 nm	1630 nm
Pulse width configuration range	5 ns	20 µs
Range	0 m	100 km

OSC Specifications

Parameter	Specification
Line rate	GbE, 100MbE
Reach	Up to 25 dB span, varies with installed pluggable
Pluggable type	SFP, SFP+

Software & Management Specifications

Parameter	Specification
Applications	NETCONF Server (YANG Model) SNMP trap adapter Java GUI (Commissioning & Maintenance)
Performance metrics	Monitoring of key optical parameters: Link loss Distance to fault (during fault condition) OSC statistics

Environmental Specifications

Parameter	Minimum	Maximum
Storage temperature	−40°C (−40°F)	85°C (185°F)
Operating ambient temperature	0°C (32°F)	40°C (104°F)
Relative humidity	5%	95%

Laser Safety

The laser is certified as a Class 1 laser product per international standard IEC 60825-1:2014 3rd edition and is considered non-hazardous when operated within the limits of this specification. This device complies with 21 CFR 1040.10 except for deviations pursuant to Laser Notice No. 50.

Caution

Operating this product in a manner inconsistent with intended usage and specifications may result in hazardous radiation exposure.

Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.

Tampering with this laser product or operating this product outside the limits of this specification may be considered an “act of manufacturing” and may require recertification of the modified product.

Other Whiteboxes

The complete series of XenOpt Whiteboxes includes:

- Terminal Amplifier Whitebox and Transport Mux/Demux Whitebox
- Transport ROADM Whitebox
- Transport Line Amplifier Whitebox
- Optical Fiber Monitor Whitebox.

Ordering information[1]

PN	Description
XWB-OFM-1262-DC	Optical Fiber Monitor (OFM) Whitebox, 12 optical fibers monitored, automated fault detection and location, on-demand measurement and analysis, fiber span 80 km

Notes:

[1] For accurate order specification please contact Xenopt reseller before placing an order. The content of this document is subject to change without notice. Xenopt does not guarantee errorless or outdated information. Please specify any compatibility requirements at time of ordering.

Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by XenOpt before they become applicable to any particular order or contract. In accordance with the XenOpt policy of continuous improvement specifications may change without notice.

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