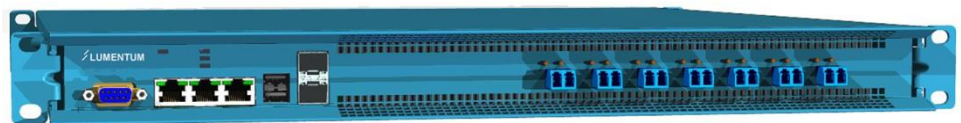


New Line Amplifier Whitebox



The Line Amplifier Whitebox extends your system reach beyond the single span limit of Terminal Amplifiers.

The Line Amplifier Whitebox combines all necessary functions to support lines in two directions in a single 1RU element that is easy to deploy and easy to manage.

The Line Amplifier EDFAs are state of the art switchable gain models which provide larger dynamic range with dramatically better NF performance than traditional variable gain EDFAs.

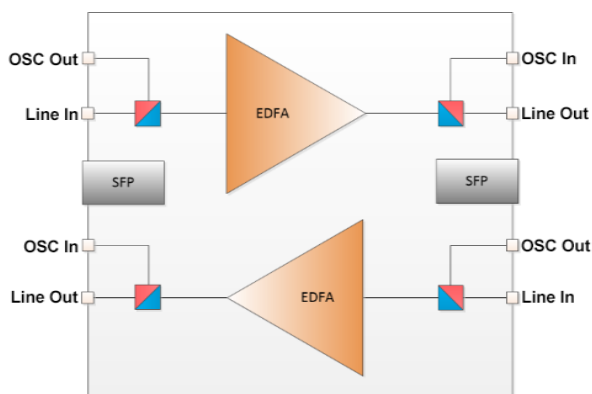
Gain operation range can be selected dynamically while the EDFA is out of service and can be set individually for each line direction.

- OSC termination for each line
- Option for customer/3rd party OSC overlay filters

Compliance

- FCC Part 15 (Class A)
- FDA 21 CFR 1040.10, CDRH Laser Notice 50 (IEC Class 1M) except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007
- IEC 60825-1 Laser Safety, Class 1M
- UL 60950 3rd Edition, December 2000
- CAN/CSA-C22.2 No. 950-95
- RoHS 6/6

Dual High Power Variable Gain EDFAs



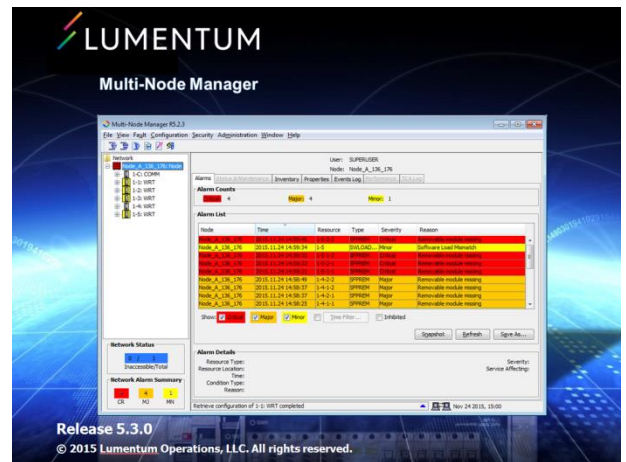
Key Features

- Two identical high power variable gain EDFAs, each with two switchable gain ranges

Network Management Integration

Lumentum's Line Amplifier Whitebox is a NETCONF-enabled device, designed for ease of integration with 3rd party SDN controllers. Highlights of the NETCONF management interface are as follows:

- Secure connection layer – support for NETCONF over SSH
- RADIUS client support for SSH authentication and user accounting
- SFTP client support for file transfers, including firmware upgrades.
- Simplified configuration commands support immediate writes to the running-config.
- URL capability support for saving and restoring configuration data from http and file schemes
- Validation capability is provided to test and validate configurations before applying them



In addition, two other management interfaces are available:

- An intuitive Java-based GUI application for technician turn-up and debugging;
- A simple command-line interface, which can equally be used to access all management features of the device.

Technology Differentiation

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

Lumentum's vertically integrated product portfolio of optical components and subassemblies allows us to optimize cost and density at the end product level.

Specifications

Chassis Features

Parameter	Specification		
Maximum Dimensions (H x W x D)	1.75 (1RU) x 17.4 x 23.6 in		4.45 x 44.19 x 60 cm
LEDs	<ul style="list-style-type: none"> • 3 LEDs for chassis status summary • 1 LED for chassis identification • Per ports status LEDs for all optical inputs and active outputs 		
Management LAN connectivity	10/100/1000BaseT Ethernet (RJ-45)		Also via OSC link
Local Access	10/100/1000BaseT Ethernet (RJ-45)	Serial (DB-9)	USB (not used)
Power Entry	Dual, field-replaceable 120/240VAC power supplies located at rear		
Power Consumption	Typical: <65W in normal operation		Maximum: 100W
Cooling	Field replaceable fan unit, located at rear		Airflow front-to-back

Optical Specifications - EDFAs

Parameter	Specification	
Channels	Up to 96	
Gain Ranges ¹	5 to 15dB, 18dB extended	13 to 25dB, 28dB extended
	Minimum	Maximum
Output Power	Maximum	22.5 dBm
Input Power Range	-34.5 dBm	+18 dBm
Transient Performance ¹		
Gain Over/Undershoot		0.5dB
Gain Offset		+/-1dB
Settling Time		3ms

1 Each gain range supports extended operation of 3dB under negative tilt to support stretched spans

2 Transient performance based on 20dB input drop event with 1ms duration

OSC Specifications

Parameter	Specification
Wavelength	1510 CWDM
Line Rate	GbE, 100MbE
Reach	Up to 25dB span, varies with installed pluggable
Pluggable Type	SFP, SFP+
Customer OSC Overlay Wavelength ²	1611 CWDM

2 Option to include additional set of OSC add/drop filters to support overlay of customer/3rd party OSC channel with external termination

Software & Management Specifications

Parameter	Specification
Applications	<ul style="list-style-type: none"> NETCONF Server (Yang Model) CLI GUI (Commissioning & Maintenance)
User Authentication	SSH/RADIUS
Performance Metrics	Monitoring of key optical parameters: <ul style="list-style-type: none"> Input, output powers EDFA operating points OSC statistics

Environmental Specifications

Parameter	Specifications	
	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%

Ordering

To order the Line Amplifier Whitebox, or other Lumentum products, please contact Lumentum Customer Support, using the contact information on the back page of this datasheet.



North America

Toll Free: 844 810 LITE (5483)

Outside North America

Toll Free: 800 000 LITE (5483)

China

Toll Free: 400 120 LITE (5483)

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Product specifications and descriptions in this document are subject to change without notice.

Note: The appearance and placement of ports on the final product may not match those of the product image shown on the first page of this document.