G series EDFA

Optical Amplifier Family

FEATURES

- Booster, Line and Pre-amplifier type of optical amplifiers
- Amplification with Erbium doped optical fibe
- Up to 48CH/96CH DWDM channels in C-Band
- Automatic gain control (AGC) and Automatic Power Control (APC) operation
- Saturated output power with up to +23dBm
- Single or Two-stage amplification with optional mid-stage DCF
- Optional Built-in output VOA with automatic power control
- Network management through SNMP and Web GUI
- Low noise figure for Erbium Amplifiers
- Operating temperature range -

APLICATIONS

- Long haul DWDM transport systems
- Transport systems with large number of channels
- Transport Systems using transceivers that require external amplification, like PAM4 DWDM
- Data Center Interconnect systems

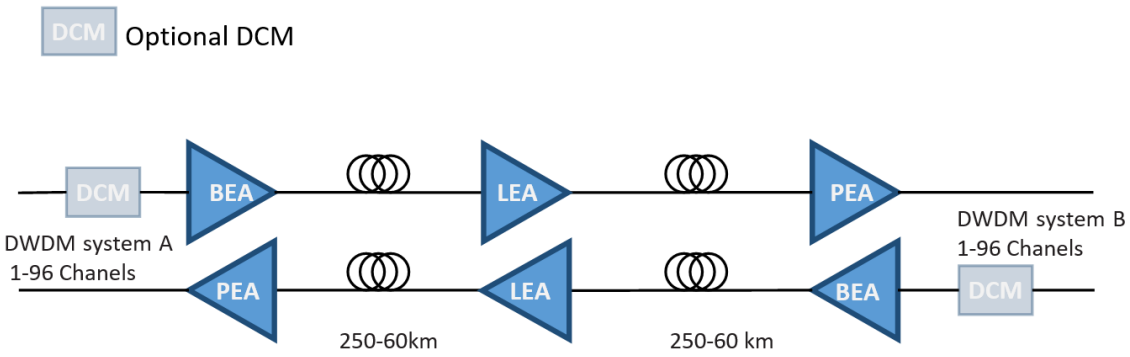
DESCRIPTION

X8600-G series optical amplifiers is a family of cost effective Erbium Doped Fiber optical Amplifiers (EDFA) that are compatible with X8600 XenOpt transport chassis that extend amplification range compared to previous series optical amplifiers. Each amplifier is a single height X8600 module. Each amplifier type is also available with additional input voltage controlled attenuator (VOA) that enables wider adjustment range of output levels.

Amplifiers can be managed through snmp with ability to control gain and receive alarm conditions when selected optical parameters, temperature or current exceed set thresholds. For network based management X8600 chassis must include X6500-SCM management module. For installations that do not require remote management these optical amplifiers can also be managed through on board serial interface and/or their parameters can be preset before installation and used without management. On customer request the Amplifiers can be equipped with a Monitor port, which is particularly suitable for connecting a Spectrum Analyzer, Packer Broker, etc.The built-in TAP can be of different values: 1, 2, 5%, ..."

All these amplifiers operate in constant gain mode (AGC) – amplifying all signals for set amount. Standard versions G series amplifiers can cover most of C-Band range (1529-1561nm). These amplifiers are also available in Extended version that operate from 1528nm to 1568nm.

TYPICAL LONG HAUL APPLICATION

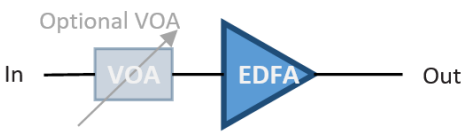


X8600-20G17(V) is a single stage EDFA Amplifier typically used as booster amplifier (BEA) for amplifying transmission signals ether single channel or multiplexed multichannel. Saturated output optical power is 20dBm.

X8600-20G25(V) and 20G30(V) are dual stage EDFA Amplifies with 20dB and 30dB nominal amplification that can be used at all locations of the network where high gain and/or where extended adjustment is needed. They can work can work as booster or preamplifier (PEA), but is most effective as mid line (LEA) amplifier located at Intermediate location(s) of a long track.

These Amplifiers come in variable gain versions that support ±3dB gain variations. All of these amplifiers can optionally come with additional voltage adjustable attenuator (VOA) connected before EDFA input that can be controlled through management with dynamic range of 0 to -20dB.

Optional VOA is present in 20GxxV versions



TECHNICAL SPECIFICATION

Parameter			
Operating wavelength range	Standard type: 1529 nm - 1561 nm, supporting 40 CH (@ 100 GHz) or 80 CH (@ 50 GHz) for C-band DWDM systems		
	Extended type: 1528 nm - 1568 nm, supporting 48 CH (100 GHz) or 96 CH (50 GHz) for extended C-band DWDM systems		
EDFA type	X86-20G17N (V)	X86-20G25N(V)	X86-20G30N(V)
Minimum input power (typical)	-26 dBm	-34 dBm	-32 dBm
Maximum input power (typical)	+3 dBm	-5 dBm	-4 dBm
Saturation outputMpower (typical)	+20 dBm	+20 dBm	+16 dBm
Gain control in AGC mode (without VOA)	14-20 dB	22-28 dB	27-33 dB
VOA attenuation range	0 to -20 dB		
Gain flatness	≤ 1.5 dB		
Noise figure	≤ 5.5 dB		
Operating temp. range	-10℃ ~ 60℃		
Operating humidity range	5% ~ 95% non condensing		
Storage temperature	-40℃ ~ 85℃		
Equipment size	Single slot module for Xenopt X8600 chassis		
Network management	SNMP (v1, v2c, v3) and Web GUI		
Power consumption	@full output power < 15 W		
MTBF	> 100000 hours		

TECHNICAL SPECIFICATION

Part number	Product description
	Single height amplifiers G series
X86-20G17	X8600-EDFA Booster Erbium Optical Amplifier (BEA), -10□~+60□
X86-20G17NV	X8600-EDFA Booster Erbium Optical Amplifier with VOA (BEAV), -10□~+60□
X86-20G25N	X8600-EDFA Booster Erbium Optical Amplifier (BEA), -10□~+60□
X86-20G25NV	X8600-EDFA Booster Erbium Optical Amplifier with VOA (BEAV), -10□~+60□
X86-20G30N	X8600-EDFA Line Erbium Optical Amplifier (LEA), -10□~+60□
X86-20G30NV	X8600-EDFA Line Erbium Optical Amplifier with VOA (LEAV), -10□~+60□

Notes

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.

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