

CTX Series

EDFA CTX6600I-O**Optical Fiber Amplifier for SDH/Sonet****Main Features**

- Optical amplifier for single channel like SDH/Sonet applications
- Booster, inline or pre-amplifier at customer's choice
- Booster power maximum 23dBm
- Pre-amplifier can include ASE noise filter
- Mid-stage for DCF compensation optional
- Supervisory channel Add/Drop optional
- Plug and play system or OEM modules

Description

The increasing demand for more bandwidth has quickly led to a greater need for transmission capacity. With the use of DWDM multiplexers, capacities on existing fibre optic connections have been increased immediately. However, long distance between nodes requires more optical power generated by the optical equipment.

Optical amplifiers are a good option to generate high optical power levels necessary for feeding of long trunk lines or high splitting ratios in the access network.

CTX6600I is a low cost, ultra-compact and flexible optical amplifier with or without mid-stage access. It is based on our patented SmartGAIN technology. Depending on customer requirement, it can be configured as a C- or L- band EDFA, with fixed or variable gain.

Application Example: Most of applications for SDH/Sonet is point-to-point amplification. Distance can go as much as 300 km without mid-span repeater. Below diagram shows how optical amplifier is used for compensating DCF loss and boosting transmission distance. Figure A: CTX6600I-O point to point application



Figure 1: CTX6600I-O

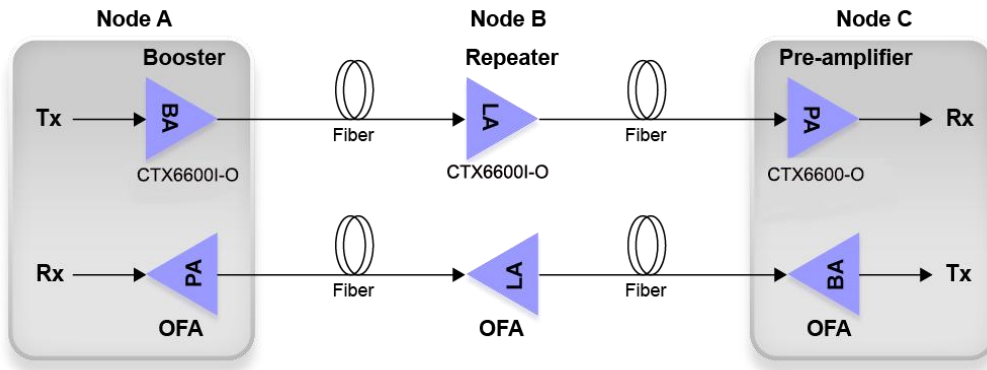
Benefits

- SFP VOA optional
- Configurable as C or L band EDFA
- Built-in standard based network management, SNMPv2 Agent, iCEO B/S
- Input and Output Monitoring Tap
- Remote flash software update
- Low cost and ultra-compact 1U rack mount unit

Applications

- Optical amplifier for single wavelength transmission to achieve greater distances
- Upgrading the optical link budget to support 10G/40G/100G/200G etc. services
- Solving high loss or Long span in fiber infrastructure
- Reducing the number of regenerators and sites along the fiber

CTX6600I-O application block diagram



Technical Specifications(System only)

Common Features			
Wavelength Range	C band: 1528 to 1565 nm L band: 1570 nm to 1608 nm		
Gain Flatness	Not Applicable		
Input/Output Detection range	25 dB min. 35 dB max		
Optical Return Loss	30 dB min.		
Polarization Mode Dispersion	0.3 ps typ. 0.5 ps max.		
Polarization Dependent Gain	0.2 dB typ. 0.5 dB max.		
Operation mode	AGC, APC, ACC		
Eye safety	Supported		
Management			
Remote Access	SNMP, iCEO B/S Web GUI		
Local Craft	CLI via RS232		
Environmental			
Operating Temperature	-5 to 55 °C		
Operating Humidity	5 to 95% (non-condensing)		
Storage Temperature	-20 to + 85 °C		
Mechanics			
Rack Mount Unit	19" 1U		
Dimensions (H x W x D)	44 x 437 x 440 mm		
Power			
Power Supply	Dual Redundancy -48 VDC, or 100/240VAC		
Power Consumption	<150W		
Application Specific			
	Booster	Inline	Pre-amplifier
Minimum Input (dBm)	-20	-30	-40
Maximum Input (dBm)	Maximum Output - Specified Gain		
Minimum Output (dBm)	Minimum Input +Specified Gain		
Maximum Output (dBm)	<=23	<=20	<=13
Gain (Typical, dB, see note)	5 ~ 15	10 ~ 25	15 ~ 35
ASE Filter (optional)	N/A	N/A	200GHz
Mid-stage Loss (optional)	From 3 to 12 dB customizable		

NOTES:

- 1) Customer specified output power shall be less or equal than above specification.
- 2) Gain for single channel amplifier is used as reference only for optimization purpose. Customer can set gain

The specifications and information within this document are subject to change without further notice. All statements, information and recommendations are believed to be accurate but are presented without warranty of any kind. Contact Danriver for more details.
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