

EDFA Optical Amplifier

Description

Range Extender

Inserted in an optical span, allows to extend 1550nm optical signal a distance of up to 40km using 2R regeneration.

Optical amplifier

This card integrates an optical Erbium-doped fiber amplifier (EDFA) with high efficiency and low consumption. Two versions available with up to 20dB of gain.

Digital Diagnosis

The card integrates an optical power monitor that allows the detection of failures in the amplification chain.

Pre and Booster Settings

Two optical configurations available: Booster, to be located at the top of the network, with optical transponders or pre-amplifier, optimal configuration to be integrated in the middle of an optical span.

Alternative to SOA amplifiers

The high gain, low noise figure (NF: 5dB) and low cost make it a real and competitive alternative to semiconductor amplifiers (SOA).

Selectable connectorization

Connectorization of the optical amplification module can be selected between SC/APC (recommended) and SC/PC.



Features

EDFA Optical Amplifier from Telnet Redes Inteligentes is an interesting unidirectional optical amplifier module based on technology Erbium-doped optical fiber (EDFA). Allows to prolong an optical span. Used in combination with coils of compensation of chromatic dispersion, the EDFA Optical Amplifier can work with transmission rates up to 40 Gbps module to extend the 1550nm short-range transponders of the transmission equipment. Used in combination with optical switching card 1+1 allows to make redundant critical long-distance transport paths.

Digital Diagnosis

The EDFA Optical Amplifier has an integrated optical power meter at the output of the optical amplifier that can detect faults in optical amplifier, reporting an alarm to the SNMP controller of the chassis which, in turn, will direct it towards the management console of the optical network. It also reports the available optical power amplifier input.

Low noise figure

With a noise figure of 5dB and a fixed amplification factor of 20dB gain, EDFA technology is a more efficient alternative to SOA amplifiers and is the only one that allows cascade chaining of devices. The card can be factory configured to work in Booster mode or optical preamplifier mode, allowing maximum flexibility in the case that the team can not settle at the midpoint of a fiber optic route.

General features

It allows to extend 40Gbps@1550nm optical signal a distance up to 40 km using 2R regeneration.

Integrates an optical Erbium-doped fiber amplifier(EDFA) of high efficiency and low consumption.

Configurable gain (up to 20dB).

Two optical configurations available: Booster and Pre-amplifier.

Low Noise Factor (NF: 5dB).

Optical power meter integrated into the optical amplifier output.

Remote SNMP management.

Allows cascade chaining.

Supported chassis: Tri-SAE, Metro-SAE.



Technical specifications for Pre-Amplification configuration

Parameter	Min.	Typ.	Max.
Wavelength Range	1530nm		1562nm
Input power	-30dBm	-18dBm	-15dBm
Output Power	4dBm		
Gain		20dB	
NF @Pin=-18dBm		4.8dB	5.5dB
PDL			0.5dB
PMD			0.5ps
Temp. Operating range	0°		65°

Technical specifications for Booster configuration

Parameter	Min.	Typ.	Max.
Wavelength Range	1530nm		1562nm
Input power	-6dBm	-2dBm	+2dBm
Output Power	+18dBm		
Gain		20dB	
NF @Pin=-18dBm		5.0dB	6.0dB
PDL			0.5dB
PMD			0.5ps
Temp. Operating range	0°		65°

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