

ROC3-EDFA

C-band EDFA booster, in-line and pre-amplifier cards for ROC3 platform



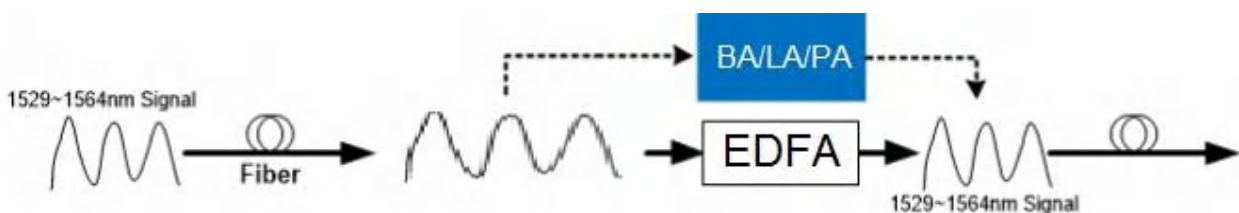
The EDFA series of cards are a perfect complement for applications requiring light amplification. ROC3-EDFA cards are able to process signals in the C-band, covering most DWDM applications. An EDFA card is only processing Layer 1 network transmission signals, being independent of speed or protocols of the communication network. Using a laser pump with AGC and APC controls, it directly amplifies multi-wavelength optical signals, thus extending the transmission distance beyond the ability of the regular optical transceivers. EDFA is usually applied in conjunction with DWDM mux/demuxes, DCM, OLP or VOA cards from same ROC3 optical transport platform.

Features

- Modular design, compact size, hot pluggable cards
- High gain, low noise, low gain flatness amplifying
- Automatic Adjustable Gain and Power (APC, AGC).
- 3 different types of EDFA available: booster, in-line and pre-amplifiers

Applications

- Long distance fiber backbone network transmissions
- Optical signal power amplification before optical signal split
- DWDM long range and high density MAN/WAN infrastructure



DWDM wavelength division system amplifying application

Specifications

Parameters	Unit	ROC3-EDFA1	ROC3-EDFA2	ROC3-EDFA3
Dimension	mm	160×200×21 (WxDxH)		
Maximal Power Consumption	W	15		
Input Power	dBm	-15 ~ 8	-24 ~ 0	-30 ~ -5
Gain	dB	15~25dB depending on model		
Saturated Output Power	dBm	+13~+20dBm depending on model		
Wavelength Range	nm	1529 ~ 1564		
Flatness	dB	≤ 1.5		
Noise Figure	dB	≤ 5.0		
Input/ Output Pump Leakage	dBm	≤ -40		
Return Loss	dB	≤ -45		
Input/Output Isolation	dB	≥ 30		
Polarization Dependent Gain	dB	≤ 0.3		
Polarization Mode Dispersion	ps	≤ 0.5		
Working Mode		AGC or APC		
Connector Type		LC/UPC		
Operating Temperature	℃	-5 ~ +55		
Storage Temperature	℃	-20 ~ +70		
Relative Humidity		5% ~ 95% (non-condensing)		

Ordering Information: ROC3-EDFAXYYZZ

X	YY	ZZ	LOW
Amplifier Type	Saturated Output Power	Max Gain	Input Power Range
1: Booster 2: In-line amplifier 3: Pre-amplifier	13: Max +13dBm 15: Max +15dBm 17: Max +17dBm 20: Max +20dBm	15: Max 15dB 18: Max 18dB 20: Max 20dB 25: Max 25dB	n/a: -15 dBm ~ +8 dBm LOW: -30 dBm ~ -5 dBm

Examples

ROC3-EDFA21725: EDFA inline amplifier, max +17dBm power, 25dB gain, LC/UPC connectors

ROC3-EDFA31518-LOW: EDFA pre-amplifier, max +15dBm power, 18dB gain, LC/UPC connectors, low power input range