

DSA-EDFA



Optical Amplifiers:

Applications:

- ▶ Hub eliminations
- ▶ Extended reach node segmentation
- ▶ Long haul super-trunking

Features:

- ▶ Dispersion compensation for 20-50 km of SMF-28 fiber
- ▶ Wide optical bandwidth of 1530-1562nm
- ▶ Dual redundant load-sharing power supply
- ▶ SNMP remote monitoring

The DSA-EDFA family of optical amplifiers is optimized for extending the reach of analog and/or QAM DWDM multi-wavelength systems to over 100 km. In long distance applications chromatic dispersion causes the broadening of the optical signals. This broadening impacts the receiver's ability to reproduce the original signal which manifests itself as an increased BER for digital signals & CSO for analog signals.

The very low noise figure ensures meeting the most stringent Carrier-to-Noise (CNR) requirements that are encountered in RF video signal delivery. Unparalleled distance & performance is achieved when combined with the Chromadigm chirp-free high OMI transmitters to reach outlying serving areas.

The DSA is a dual-stage EDFA with dispersion compensation to cancel the effects of chromatic dispersion in SMF-28 single mode fiber enabling error-free transmission over greater distances especially when combined with the Chromadigm series of multi-wavelength full spectrum transmitters. Dispersion compensation is available for 20, 30, 40, & 50 of SMF-28 fiber.

The chassis is equipped to support two modular power supply modules working in a load share configuration with the option of a universal AC or -48 VDC powering for high network reliability.

Status monitoring is provided through a local craft interface, CLI & SNMP (V4) based element management systems.



Optical Amplifier (front view)

Optical Amplifiers:

Optical Amplifier Specifications

SPECIFICATIONS		DSA*-***-*-C
OPTICAL PERFORMANCE		
BANDWIDTH ⁽¹⁾		1530-1562nm
INPUT POWER	MINIMUM	-7 dBm
	MAXIMUM ⁽²⁾	
NOISE FIGURE ⁽³⁾		< 4.5 dB
GAIN OPTIONS		6, 9 or 12 dB
POWER PER PORT ⁽⁴⁾		15, 18 or 20 dBm
OUTPUT POWER VARIATION OVER TEMPERATURE ⁽⁵⁾		± 0.2 dB
EXPRESS PORT		
AVAILABILITY		Optional
CONNECTOR TYPE		SC/APC
OPTICAL BANDWIDTH ⁽¹⁾		1545-1562nm
REFLECT BAND		1300-1620nm
INSERTION LOSS		< 0.6 dB
NETWORK MANAGEMENT		SNMP V4
POWERING		
POWER CONSUMPTION		12W
INPUT POWER RANGE		60-90 VAC, -42 to -56 VDC
PHYSICAL		
DIMENSIONS ⁽⁶⁾		1.75"H x 19.0"W x 21.0"D (4.45H x 48.26W x 53.34D cm)
WEIGHT		16.0 lbs (7.3 kg)
INPUT & OUTPUT CONNECTOR TYPE		SC/APC
ENVIRONMENTAL		
OPERATING TEMPERATURE		0°C to +50°C (+32°F to +122°F)
STORAGE TEMPERATURE		-40°C to +85°C (-40°F to +185°F)
HUMIDITY		Max. 85% Non-condensing
NOTES: (1) Optical bandwidth is reduced to 1545-1562 when input express port option is utilized. (2) Maximum input power equals total optical output power minus gain. (3) Measured at 0 dBm input power. (4) Express port option reduces output power by specified insertion loss. (5) GCA model includes optical AGC. (6) 1RU design.		

Ordering Information

DSA	Dispersion Compensation	Gain (dB)	P _{out} (dBm)	Power	Connector
	2 = 20 km	6	15	A = AC	C = SC/APC
	3 = 30 km	9	18	D = DC	
	4 = 40 km	12	20		
	5 = 50 km				

Specifications subject to change without notice.

