

OPTICAL GAIN ARRAY:

PRELIMINARY SPECIFICATION

Description

This semiconductor based optical gain array is intended for use in high bit rate applications (2.5 Gbit/s, 10 Gbit/s and 40 Gbit/s) to provide controllable gain to an array of 4 independent optical channels. An array of 4 optical amplifiers, a thermistor and thermo-electric cooler are included in a butterfly style package with single mode fiber ribbon pigtails.

Applications

This product is appropriate for both metro and long haul applications providing variable gain to separate wavelength or bands of wavelength channels. With appropriate feedback electronic circuitry channel equalisation can be realised.

FEATURES

- 4 INDEPENDENTLY CONTROLLABLE GAIN ELEMENTS
- 1550nm WINDOW
- HIGH OUTPUT POWER PER CHANNEL
- LOW POLARISATION DEPENDENCE
- LOW NOISE FIGURE
- COMPACT PACKAGE

Specifications

PARAMETER	MIN SPECIFICATION	TYPICAL SPECIFICATION	MAX SPECIFICATION
Fiber-to-fiber max gain/channel	10 dB	15 dB	
Noise figure (>5 dB gain)		8 dB	9 dB
Saturation output power/channel	10 dBm		
Polarisation dependence			0.5 dB
Gain ripple at max gain		0.2 dB	0.3 dB
3 dB optical bandwidth	40 nm	50 nm	
Gain centre wavelength	1540 nm	1550 nm	1560 nm
Bias current/channel		150 mA	200 mA
Operating temp	-5 deg C		70 deg C