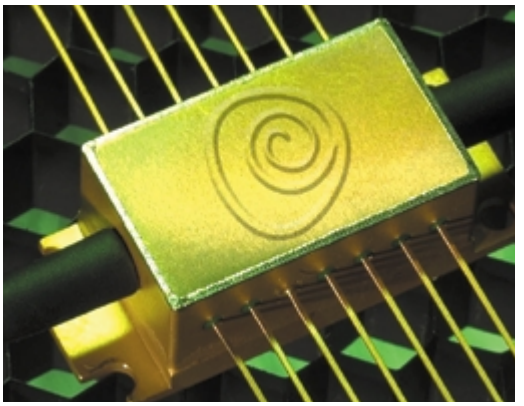
kamelian

OPTICAL PRE-AMPLIFIER:

PRELIMINARY SPECIFICATION

Description

This high gain semiconductor optical amplifier is primarily intended for use as an optical pre-amplifier in high bit rate applications (10 Gbit/s and 40 Gbit/s). Its high gain and low noise figure provide a high performance, compact and price competitive alternative to single channel EDFAs in receiver sub-systems. The optical pre-amplifier package includes a thermistor and thermo-electric cooler in a 14-pin butterfly package with single mode fiber pigtails.



Applications

This product is appropriate for both metro and long haul applications where the use of an optical pre-amplifier increases the sensitivity of the receiver system, particularly where high data rates are used. The same device is also appropriate for use as an in-line single channel amplifier for metro/access applications. With appropriate electronic circuitry, the device can be configured to provide a constant output power level over a wide dynamic range of input powers.

FEATURES

- 1550nm WINDOW
- HIGH GAIN
- LOW POLARISATION DEPENDENCE
- LOW NOISE FIGURE
- COMPACT PACKAGE

Specifications

PARAMETER	MIN SPECIFICATION	TYPICAL SPECIFICATION	MAX SPECIFICATION
Fiber-to-fiber max gain	20 dB	25 dB	
Noise figure		7 dB	9 dB
Saturation output power	5 dBm	6 dBm	
Gain ripple at max gain		0.2 dB	0.3 dB
Polarisation dependence		0.3 dB	0.5 dB
3 dB optical bandwidth	40 nm	50 nm	
Gain centre wavelength	1540 nm	1550 nm	1560 nm
Bias current		150 mA	200 mA
Operating temp	-5 deg C		70 deg C
TEC drive max			1.5A/4V