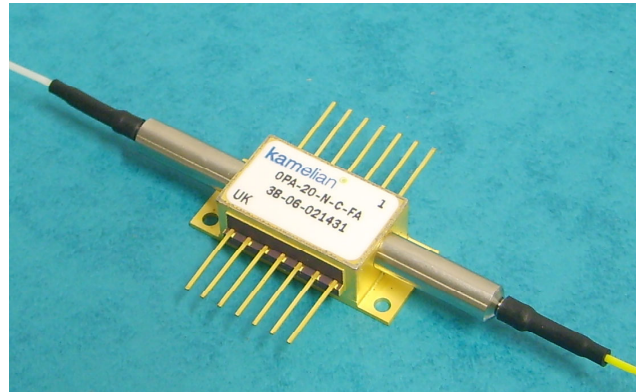


# OPTICAL PRE-AMPLIFIER

## 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 subsystems. The optical preamplifier 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. With appropriate electronic circuitry, the device can be configured to provide a constant output power level over a wide dynamic range of input powers.

## Specifications

(C Band 1529-1563nm)

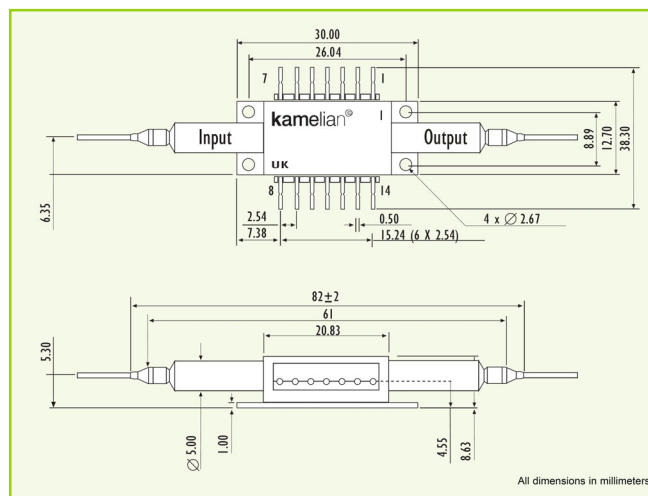
PARAMETER	MIN SPECIFICATION	TYPICAL SPECIFICATION	MAX SPECIFICATION
Fiber-to-fiber gain - (Min)	20dB		
Noise figure		6dB	7dB
Saturation output power	10dBm	11dBm	
Polarisation dependence		0.5dB	1.0dB
Gain ripple		0.3dB	0.5dB
Bias current		200mA	250mA
Operating temp	-5°C		70°C
TEC Drive Max		0.7A/1.5V	

## FEATURES

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

## Pin Allocation & Package Dimensions

PIN	DEFINITION	PIN	DEFINITION
1	TEC +	8	NC
2	THERMISTOR	9	NC
3	NC	10	SOA ANODE (+)
4	NC	11	SOA CATHODE (-)
5	THERMISTOR	12	NC
6	NC	13	CASE GND
7	NC	14	TEC -



FIBER CONNECTOR	
CODE	CONNECTOR TYPE
FP	FC/PC
FA	FC/APC
FU	FC/UPC
LP	LC/PC
LA	LC/APC
LU	LC/UPC
SP	SC/PC
SA	SC/APC
SU	SC/UPC
∅	None

## Ordering Information

OPA - YY - N - W - ZZ

Gain (18 for >18dB and 20 for >20dB are standard)

N = Non isolated is standard

Wavelength (C for C Band is standard)

Connector Type (See Table Above)



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