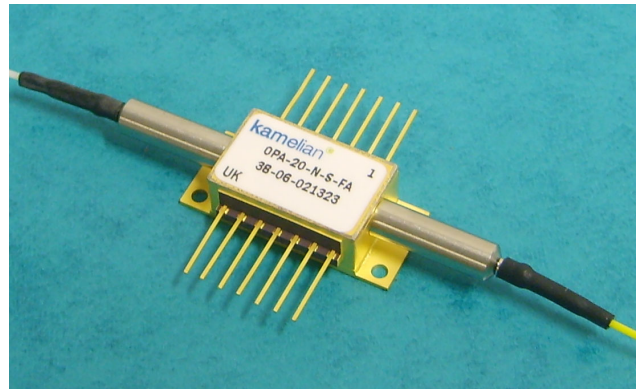


CWDM PRE-AMPLIFIERS

Description

These semiconductor optical amplifiers are primarily intended for use as optical pre-amplifiers in high bit rate systems (2.5 Gbit/s, 10 Gbit/s and 40 Gbit/s). Their high gain and low noise figure provide a unique high performance, compact and low cost amplification solution to S and L Band receiver sub-systems. The optical pre-amplifier includes a thermistor and thermo-electric cooler in a 14-pin butterfly package with single mode fiber pigtailed.



Applications

These products are appropriate for CWDM metro and metro access 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

(S Band 1470-1530nm; L Band 1550-1610nm*)

PARAMETER	MIN SPECIFICATION	TYPICAL SPECIFICATION	MAX SPECIFICATION
Fiber-to-fiber gain - (Min)	18dB	20dB	
Noise figure		7dB	8dB
Saturation output power	10dBm	11dBm	
Polarisation dependence		1.5dB	1.8dB
Gain ripple		0.3dB	0.5dB
Bias current		200mA	250mA
Operating temp	-5°C		70°C
TEC Drive Max		0.7A/1.5V	

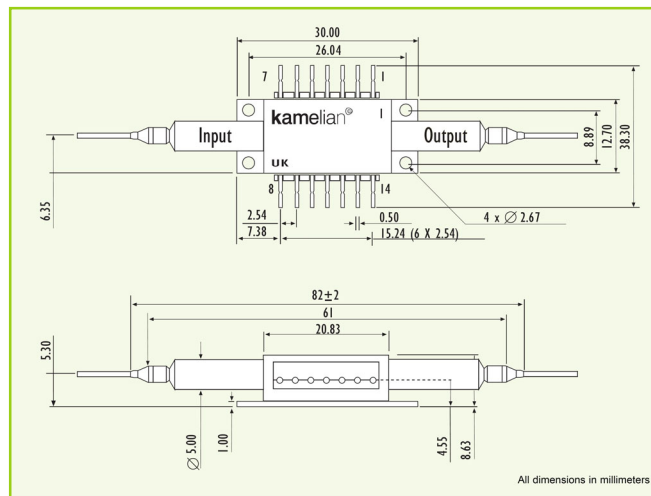
* L Band preliminary specifications only.

FEATURES

- S AND L BAND
- 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 is standard)

N = Non isolated is standard

Wavelength (S for S Band is standard; L for L band on request)

Connector Type (See Table Above)



Amphotonix reserves the right to make changes in design, specifications and other information at any time, and without prior notice. The information contained within this Data Sheet is believed to be accurate. However, no responsibility is assumed for possible inaccuracy or omission. Any information contained herein shall legally bind Amphotonix only if it is specifically incorporated into the terms and conditions of a sales agreement.

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