

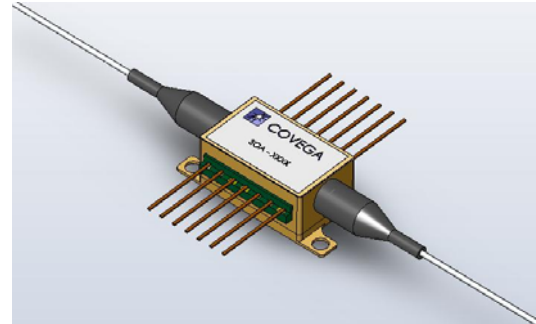
BOA 1004: C-band Booster Optical Amplifier

7.1.2.SP.1004 Rev D

Description

The BOA 1004 is a high saturation output power high bandwidth polarization maintaining Booster Optical Amplifier (BOA). It incorporates a highly efficient InP/InGaAsP Quantum Well (QW) layer structure and a reliable ridge waveguide design.

It is housed in a standard 14 pin butterfly package with integrated thermoelectric cooler and thermistor. Packaging options include isolator(s) and choice of single mode fiber and polarization maintaining fiber tails.



Features

Applications

- ✓ Telecom & Datacom
- ✓ Booster Amplifier of Fixed and Tunable ITU Lasers and Transmitters
- ✓ Research & Non-Linear Applications

- High Saturation Output Power
- Broad Spectral Bandwidth
- High Fiber-to-Fiber Gain
- High Polarization Extinction Ratio

Specifications

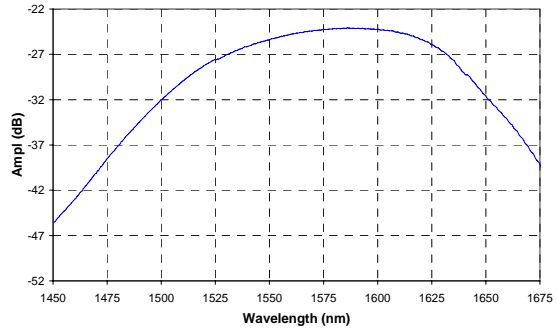
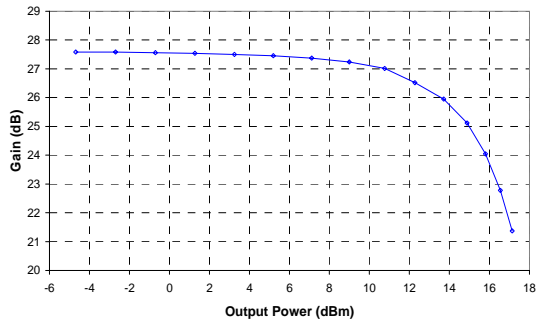
CW; T (Chip) = 25°C, T (Case) = 0 - 70°C

Parameter		Min	Typ	Max	
Operating Current	I_{OP}		600	750	mA
Central Wavelength	λ_C	1530	1550	1570	nm
Optical 3 dB Bandwidth	BW	90	100		nm
Saturation Output Power @ -3 dB	P_{SAT}	13	15		dBm
Small Signal Peak Gain @ Pin = -20 dBm	G	25	28		dB
Gain Ripple (rms) @ I_{OP}	δG		0.1	0.2	dB
Noise Figure	NF		7	9	dB
Forward Voltage	V_F		1.4	1.6	V
TEC Operation (typ / max @ $T_{CASE} = 25^\circ C / 70^\circ C$)					
- TEC Current	I_{TEC}		0.12	1.5	A
- TEC Voltage	V_{TEC}		0.25	4	V
- Thermistor Resistance	R_{TH}		10K		Ω

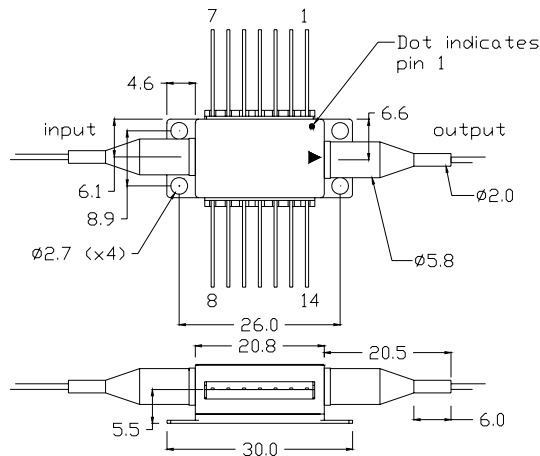
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

BOA 1004

Performance



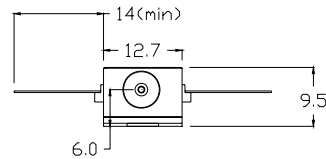
Packaging



PIN IDENTIFICATION

1. TEC +	14. TEC -
2. Thermistor	13. Case
3. NC	12. NC
4. NC	11. SDA Cathode
5. Thermistor	10. SDA Anode
6. NC	9. NC
7. NC	8. NC

Recommended mounting torque is 10-20oz.in (0.07-0.14Nm).



all dimensions in mm

Ordering Information

BOA 1004 - X - 0 - X - X - X - X - X

X	0	X	X	X	X	X	Numeric
Isolator	Reserved	Fiber jacket configuration*	Input Fiber	Output Fiber	Input Connector	Output Connector	Grade Level
0 = none		T = SMF-28, tight jacket	S = SMF	S = SMF	A = FC/APC	A = FC/APC	0 / blank = Std.
1 = input only		V = PMF 1550 nm, loose tube	P = PMF	P = PMF			1 = XL
2 = output only							2 = Reserved
3 = input & output							

Custom orders with isolators require a minimum purchase quantity.

* see all of the fibertail options in the Covega catalog

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