

BOAnxxx

OPTICAL AMPLIFIER 1550 NM

Application

- ▶ Amplification of 1550 nm optical signals on single mode fibers
- ▶ Booster, in-line or distribution amplifier in Hybrid-Fiber-Coax (HFC) networks

Features

- ▶ Erbium doped fiber amplifier technology
- ▶ 980 nm pump laser diode
- ▶ Available output powers from 13 dBm up to 24 dBm
- ▶ From 1 up to 8 output ports
- ▶ Supervision of the optical input level, optical output level and pump laser current
- ▶ Optical output test port (2 dBm) for testing and further optical amplifier cascading Input and output monitors (optional)
- ▶ Optional measurement unit for SBS threshold of succeeding fiberoptic links (SBS detection)
- ▶ Automatic switch-off in case of non sufficient optical input power (to prevent optical PIN diode receivers from damage)
- ▶ RS 485 interface
- ▶ Redundancy (2 pump lasers) optional for power levels starting from 16 dBm
- ▶ OEM versions available



Technical Data

Parameter	Unit	
Input signal wavelength	[nm]	1550 ± 10
Wavelength of pump lasers (typ.)	[nm]	980/1480
Min. optical output level	[dBm]	≈ 0.0 (*)
Optical return loss	[dB]	> 40
Min. optical input level	[dBm]	-3
Max. opt. input level	[dBm]	+6
Polarization dependent gain	[dB]	< 0.2
Noise figure (@Pin=0dBm, λ=1555nm)	[dB]	< 5.0
Noise figure (@Pin=-10dBm, λ=1550nm)	[dB]	< 5.0
Residual pump power (input and output)	[dBm]	< -10
CSO with CENELEC 42	[dBc]	-80
CTB with CENELEC 42	[dBc]	-90
Supply voltage	[VDC]	24
Power consumption		12-36 W
Test port output power	[dBm]	2.0 ± 1.5
Dimensions of BK equipment		
BOA1xxx, BOA2xxx (no test port)		Module width 1
BOA2xxx, BOA3xxx, ... BOA8xxx		Module width 2
Weight		
Module width 1		~1.3 kg
Module width 2		~2.0 kg
Optical connector		any HRL type

(*) Note: min. P_{out} ≥ 0.0 dBm

BOAnxxx - individual data for laser class 1M versions

Opt. Output Power	[dBm]		
		BOA1130	1 x 13.0±0.5
		BOA2130	2 x 13.0±0.5
		BOA4130	4 x 13.0±0.5
		BOA6130	6 x 13.0±0.5
		BOA8130	8 x 13.0±0.5
		BOA3150	3 x 15.0±0.5
		BOA4150	4 x 15.0±0.5
		BOA6150	6 x 15.0±0.5
		BOA1160	1 x 16.0±0.5
		BOA1165	1 x 16.5±0.5
		BOA2165	2 x 16.5±0.5
		BOA3165	3 x 16.5±0.5
		BOA4160	4 x 16.0±0.5
		BOA1200	1 x 20.0±0.5

BOAnxxx - individual data for laser class 3B versions

Opt. Output Power	[dBm]		
		BOA1220	1 x 22.0±0.5
		BOA1230	1 x 23.0±0.5
		BOA1240	1 x 24.0±0.5

Ordering Information

For more information on this product please contact BKtel communications. Properties for ordering optical amplifier BOA.

Number of outputs	1	1
	2	2 (max 16.5 dBm)
	3	3 (max 16.5 dBm)
	4	4 (max 16.0 dBm)
	6	6 (max 15.0 dBm)
	8	8 (max 13.0 dBm)
Optical output power	130	+ 13.0 dBm (max 8 outputs)
	150	+ 15.0 dBm (max 6 outputs)
	160	+ 16.0 dBm (max 4 outputs)
	165	+ 16.5 dBm (max 3 outputs)
	200	+ 20.0 dBm (max 1 outputs)
	220	+ 22.0 dBm (max 1 outputs)
	230	+ 23.0 dBm (max 1 outputs)
	240	+ 24.0 dBm (max 1 outputs)
Optical testpoint	0	No
	2	Yes, +2 dBm
SBS-detection	0	No
	1	Yes
Internal redundancy	0	No
	R	Yes
Optical connector	1	E2000
	2	SC/APC
	3	FC/APC-NTT
	4	FC/APC-JDS
	5	SC/APC with shutter
	6	FC/PC-NTT
Version	0	BKtel
	OEM	OEM