

OVxxxx/OVxxxxDW

OPTICAL AMPLIFIER FOR 1550 NM



Application

- ▶ Amplification of 1550 nm optical signals on single mode fibers
- ▶ DW model in particular for DWDM applications
- ▶ Output powers of 13.. 25 dBm

Features

- ▶ Erbium doped fiber amplifier technology
- ▶ 980 nm / 1480 nm pump laser diode(s)
- ▶ Gain flattening filter (-DW version)
- ▶ Constant gain or output power control
- ▶ Redundancy (2 pump lasers) optional for power levels starting from 16.5 dBm

- ▶ Input and output monitors
- ▶ Optional measurement unit for SBS threshold of succeeding fiberoptic links (SBS detection)
- ▶ Dual, hot-plug-in power supply modules for 100 .. 240 VAC, -48 VDC, +24 VDC
- ▶ Ethernet - Web and -SNMP Interface (a-Version)
- ▶ RS232/RS485 control interface (b-Version)
- ▶ LC display
- ▶ General purpose I/O interface for remote functions
- ▶ LED status indication
- ▶ Very thin design, only 1 HU
- ▶ OEM versions available

Technical Data

General		standard EDFAs OVxxxx	gain flattened EDFAs OVxxxxDW
Input signal wavelength	[nm]	1550 ± 10	1530 ... 1561
Wavelength of pump lasers (typ.)	[nm]	980/1480	980
Optical return loss	[dB]	>40	>40
Min. optical input level	[dBm]	-3	-30
Max. opt. input level	[dBm]	+6	-10
Gain flatness (at nom. gain and Pin = -10 dBm)	[dB]	-	1.0 typ. (<1.5)
Dynamic gain flatness (at nom. gain)	[dB]	-	1.0 typ. (<1.5)
Polarization dependent gain	[dB]	<0.2	<0.2
Noise figure (@Pin=0dBm, λ=1555nm)	[dB]	<5.0	-
Noise figure (@Pin=-10dBm, λ=1550nm)	[dB]	-	5.0 typ. (<6.0)
Residual pump power (input and output)	[dBm]	<-10	<-10

different optical amplifier types

OVxxxx – standard EDFA - individual data for laser class 1M versions

Opt. Output Power	[dBm]		
		OV1130	1 x 13.0±0.5
		OV2130	2 x 13.0±0.5
		OV4130	4 x 13.0±0.5
		OV6130	6 x 13.0±0.5
		OV8130	8 x 13.0±0.5
		OV3150	3 x 15.0±0.5
		OV4150	4 x 15.0±0.5
		OV6150	6 x 15.0±0.5
		OV1165	1 x 16.5±0.5
		OV2165	2 x 16.5±0.5
		OV3165	3 x 16.5±0.5
		OV4160	4 x 16.0±0.5

OVxxxx – standard EDFA - individual data for laser class 3B versions

Opt. Output Power	[dBm]		
		OV1200	1 x 20.0±0.5
		OV1220	1 x 22.0±0.5
		OV1230	1 x 23.0±0.5
		OV1240	1 x 24.0±0.5
		OV1250	1 x 25.0±0.5

OAxxxxDW – DWDM EDFA - individual data

	Saturated Output Power [dBm]	Nominal Optical Gain [dB]	Gain adjustment range [dB]
OV1130DW	1 x 13.0±0.5	25 dB typ. (23 dB min)	13 dB ... nom. gain
OV1165DW	1 x 16.5±0.5	28 dB typ. (26 dB min)	16 dB ... nom. gain

Electrical and Mechanical Properties

Opt. Connector		any type of high return loss connectors front or rear side mounted
Optical fiber		standard singlemode 9/125 μm
Climatic Specification		
Operation		ETS 300 019, class 3.1
Storage		ETS 300 019, class 1.2
EMI		EN50083-2 (April 1996) EN50083-2 /A1 (February 1998)
Power Supply		100...240 VAC
Dual redundant, hot pluggable (2 Versions are available)		36...60 VDC
Power Consumption	[W]	30 ... 60 W
Enclosure		19" / 1 RU
Weight	[kg]	9.7

Ordering Information

For more information on this product please contact BKtel communications.

Model code for ordering OVxxx/OVxxxDW:

10010-

power supply	230/230	2x (100...240VAC)	
	48/48	2 x (36 ... 72 VDC)	
	24/24	2 x (23.5 ... 24.5 VDC)	
	230	1x (100 ... 240 VAC)	
	48	1 x (36 ... 72 VDC)	
	24	1 x (23.5 ... 24.5 VDC)	
	230/48	mixed 230 VAC/ 48 VDC	
	version	0	BKtel
		OEM	OEM
	optical input/ optical output	F	on front side
		R	on rear side
	optical connector	1	E2000
2		SC/APC	
3		FC/APC-NTT	
4		FC/APC-JDS	
5		SC/APC with shutter	
6		FC/PC-NTT	
I/Oports	0	no	
	1	yes	
NMS-Interface	A	HTTP/SNMP Ethernat	
	B	RS485	
internal redundancy	R	yes	
	0	no	
DWDM	0	no	
	DW25	25dB gain	
	DW28	28dB gain	
SBS-detection	0	no	
	1	yes	
optical testpoint	0	no	
	2	yes,+2dBm	
optical output power	130 (max. 8 outputs)	+13dBm	
	150 (max. 6 outputs)	+15dBm	
	160 (max. 4 outputs)	+16dBm	
	165 (max. 3 outputs)	+16.5dBm	
	200 (max. 1 output)	+20dBm	
	220 (max. 1 output)	+22dBm	
	230 (max. 1 output)	+23dBm	
	240 (max. 1 output)	+24dBm	
	250 (max. 1 output)	+25dBm	
number of outputs	1	1	
	2	2 (max 16.5 dBm)	
	3	3 (max 16.5 dBm)	
	4	4 (max 16.0dBm)	
	6	6 (max 15 dBm)	
	8	8 (max 13 dBm)	

Specifications subject to change without notice - DBE_OVxxx_240506.doc