

OAnxxx

2G6 OPTICAL AMPLIFIER

Application

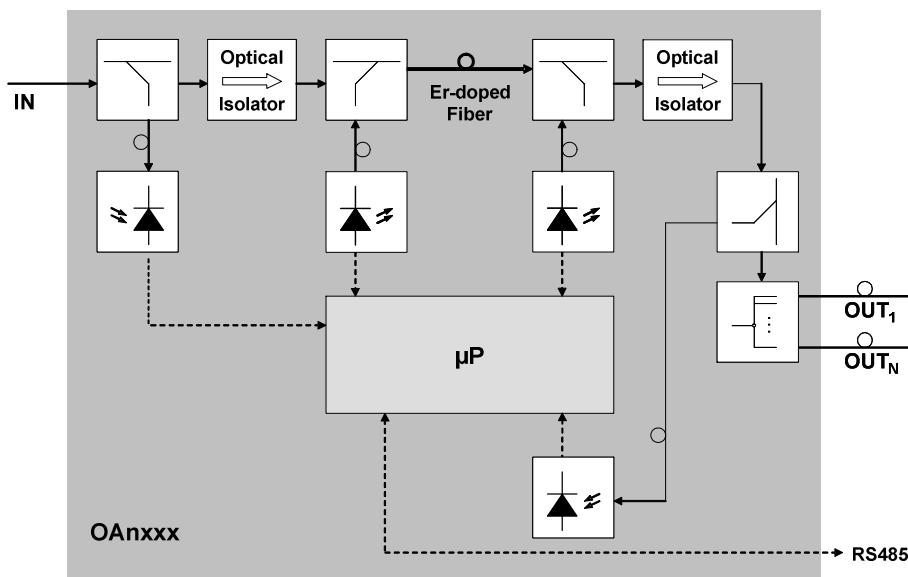
- ▶ Amplification of 1550 nm optical signals on single mode fibers
- ▶ Booster, in-line or distribution amplifier in Hybrid-Fiber-Coax (HFC) networks

Features

- ▶ Erbium doped fiber amplifier technology
- ▶ +13 to +20 dBm optical output power per port
- ▶ Up to 4 optical output ports (internal optical splitter)
- ▶ Constant output power control
- ▶ Supervision of the optical input level, optical output level and pump laser current
- ▶ Automatic switch-off in case of non sufficient optical input power (to prevent optical PIN diode receivers from damage)
- ▶ Standby mode



Block Diagram



Specifications subject to change without notice - DBe_OAnxxx_290109.doc

Technical Data

OA Mnemonic

OAxxxx

n= number of output ports
 x= output power per port
 (e.g 130 equals 13.0 dBm)

Parameter	Unit	
Input signal wavelength	[nm]	1540 ... 1560
Wavelengths of pump lasers (typ.)	[nm]	980 / 1480
Min. optical output level	[dBm]	≈ 0.0 (*)
Optical return loss	[dB]	50
Optical input power range	[dBm]	-4 ... +10
Noise figure at 0 dBm	[dB]	≤ 4.8
Polarization dependent gain	[dB]	< 0.2
Residual pump power (input and output)	[dBm]	< -10
CSO with Cenelec 42 according EN50083-3	[dBc]	80
CTB with Cenelec 42 according EN 50083-3	[dBc]	90
Supply voltage	[VDC]	24
Power consumption:		
OA1130, OA1165, OA2130	[W]	≤ 12 (≤6 in standby mode)
OA4130, OA2165, OA1200	[W]	≤ 24 (≤10 in standby mode)
OA2200, OA4165	[W]	≤ 36 (≤10 in standby mode)
Output power tolerance	[dB]	±0.5 (1551 ... 1556 nm)
	[dB]	±0.8 (1548 ... 1560 nm)
Number of Slots for 2G6 chassis		Module width 2
Weight	[kg]	~2.0
Optical connectors		Any HRL type (SC/APC standard)
Equipment operation environmental conditions		
Operation		ETS 300 019, class 3.1
Storage temperature		ETS 300 019, class 1.2

(*) Note: min. P_{out} ≥ 0.0 dBm

Available Types

OA1130, OA1165 and OA1200

One optical output port with 13, 16.5 and 20 dBm optical power

OA2130, OA2165 and OA2200

Two optical output ports with 13, 16.5 and 20 dBm optical power per port

OA4130 and OA4165

Four optical output ports with 13 and 16.5 dBm optical power per port