

- High quality and reliability
- GaAs Push-Pull output stage
- Input optical power monitoring possibility
- Compact housing
- Plug-in modules

OPTICAL RECEIVER

ALPHA O8X-AF8-27Y

Alpha O8X-AF8-27Y is designed as a compact optical receiver for HFC networks. GaAs Fet Push-Pull technology allows to achieve high output signal level while reducing amplifier power consumption. Alpha is in compliance with: EN 50083-1..3, EN 50083-6, IEC 1000-4-5, IEC 529.



GENERAL SPECIFICATION

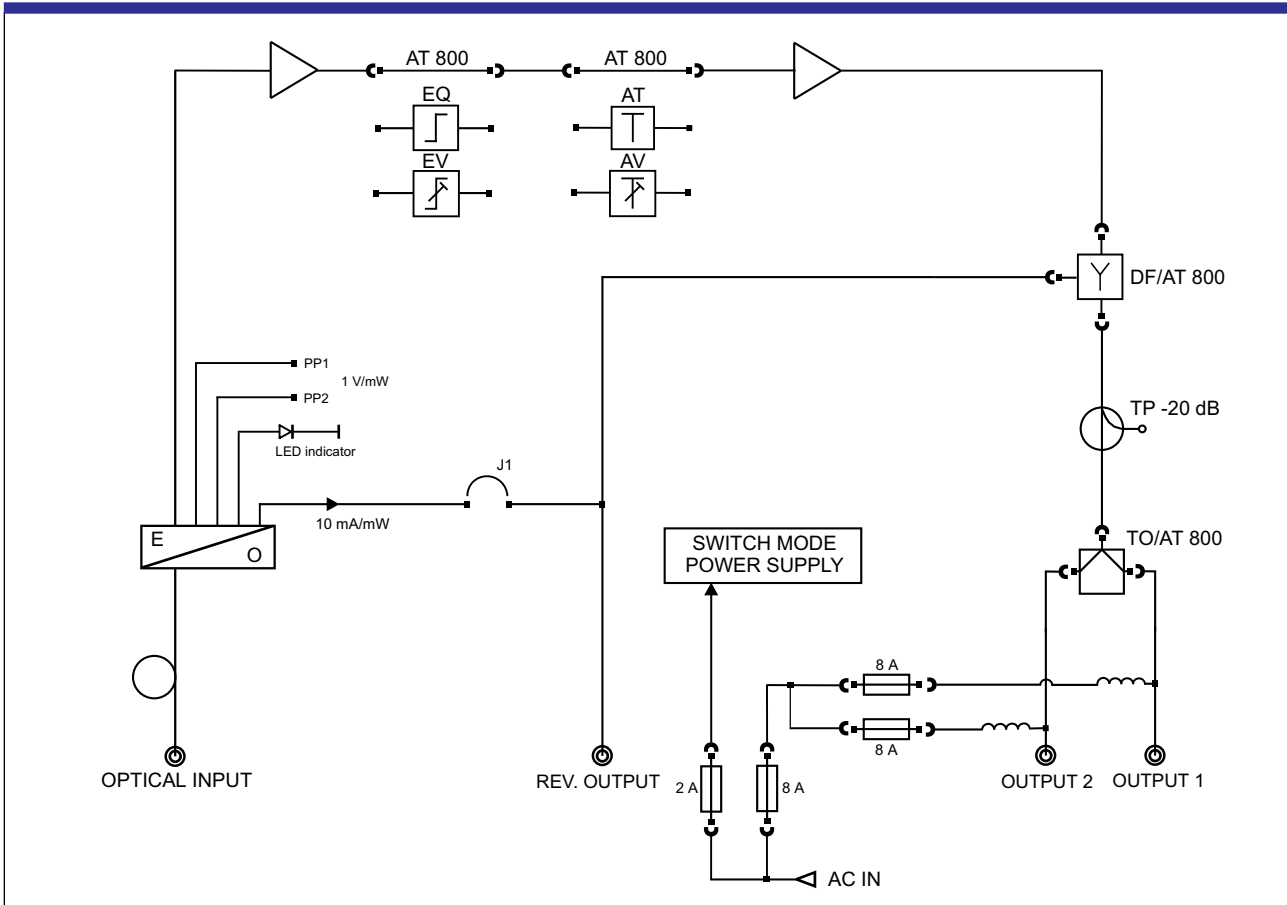
Forward Pass-Band ¹⁾	47.. 85 ÷ 862 MHz	
Optical wavelength	1290 ÷ 1600 nm	
Optical input power level	min. -6 dBm max. +3 dBm	
Flatness	±1,0 dB	
Output level ²⁾	≥107 dBμV	
Output level (typical) forward path [dBμV]	CTB ³⁾	CSO ³⁾
Single output	107	109
Two outputs	103,5	105,5
Equivalent current noise	8 pA /√Hz	
AC current passing (all ports, HUM <-60dB @ 855,25MHz)	8 A	
AC current passing (local AC input)	8 A	
Power consumption	≤14 W	
Remote powering	20 ÷ 65 V AC	

¹⁾ depends on plug-in diplex filters

²⁾ for optical input power = 0 dBm, OMI = 3,5% measured with 42 carriers CENELEC (EN 50083-3)

³⁾ for CTB < -60 dB and CSO < -60 dB measured with 42 carriers CENELEC (EN 50086-3)
typical value in T=25°C and 0 dB interstage equalizer

⁴⁾ other types of optical connectors on request



TECHNICAL SPECIFICATION

ADJUSTMENT

Slope	fixed equalizer EQ (1-24 dB, step 1 dB) or variable equalizer EV (0-18 dB)
Gain	fixed attenuator AT (0-21 dB, step 1 dB) or variable attenuator AV (0-18 dB)

INPUTS/ OUTPUTS

Input optical connector ⁴⁾	SC / APC
Number of output ports	2
RF connector type	2 x PG 11
Internal test-point for optical power measurement	1 V / mW
External test-point for optical power measurement (REV. OUTPUT current)	10 mA / mW
Reverse Output connector	F
Return loss	class B (EN 50083-3) ≥ 18 dB (f ≤ 40 MHz) ≥ 18 dB -1,5 dB /oct. (f > 40 MHz)
Test-point output, directional	-20 ± 1,0 dB, F

PASSIVE REVERSE CHANNEL

Pass-Band ¹⁾	5 ÷ 30..65 MHz
Attenuation	<1,2 dB

HOUSING

Degree of protection	IP 54
Dimensions:	
● Width	main body 162 mm overall (with hinge and screwholders) 192 mm
● Length	160 mm
● Height	82 mm
Operating ambient temperature range	-25 ÷ +60°C
Weight	2 kg

Specification subjects to change without notice.