

Optical Fiber Amplifier (METRO EDFA)

The LiComm Optical Fiber Amplifier OFA-WC1 series are designed for high-performance and wide bandwidth DWDM and CWDM system of access networks and metropolitan networks. It offers wide flat range, high gain, low noise, compact size, wide input range and automatic gain control(AGC). LiComm developed the OFA-WC1 series which control very fast to suppress transient gain overshoot and under-shoot to prevent degradation of transmission quality in optical add/drop multiplexer (OADMs). It improves robustness on the input variations in metro networks and also offers great flexibility in DWDM system. The built-in digital signal processor provides control and monitoring of many functions - input and output power, LD bias, temperature and etc.. The OFA-WC1 series promise the convenience of DWDM and CWDM system design in a real field with OADM.



Features

- ▶ **Fast transient suppression**
- ▶ Integrated electric control (full function EDFA)
- ▶ Wide flat wavelength range and excellent gain flatness
- ▶ Wide input dynamic range
- ▶ Low noise figure
- ▶ Input / Output optical monitoring (optional)
- ▶ Compact size
- ▶ Automatic power control or Automatic gain control
- ▶ Convenient system interface (with RS232)
- ▶ Single +5V power supply

Applications

- ▶ 2.5G DWDM & CWDM metro networks
 - Booster, In-line, Pre- Amp.
- ▶ 10G DWDM & CWDM metro networks
 - Booster, In-line, Pre- Amp.
- ▶ OADM access network
- ▶ LANs and MANs
- ▶ SONET/SDH systems

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Signal wavelength range	λ	1530	-	1562	nm
Saturated output power	P_{OUT}	-	-	17	dBm
Signal gain	G	-	25	-	dB
Noise figure ¹⁾	NF	-	4.5	5.0	dB
Gain flatness	ΔG	-	1	-	dB
Input dynamic range	P_{ID}	-	16	-	dB
Channel gain variation	G_C	-0.5	-	0.5	dB
Transient suppression ²⁾	T_G	-	0.2	-	dB
Optical isoation	ISO	30	-	-	dB
Return loss	RL	40	-	-	dB
Polarization mode dispersion	PMD	-	-	0.3	ps
Polarization dependent gain	PDG	-	-	0.3	dB

Note 1) @Gain = 25dB, P_{OUT} = 17dBm

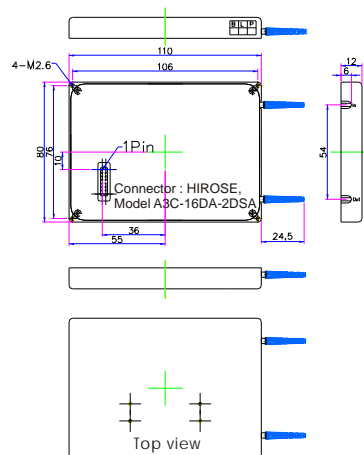
2) @3dB Add/Drop Case

Electrical & Environmental

Parameter	Typical value
Power supply voltage	+5V
Interface	RS232
Operating temperature	-20 ~ 75 °C
Storage temperature	-40 ~ 85 °C
Storage humidity	0 ~ 95% R.H
Power consumption*	4.2W

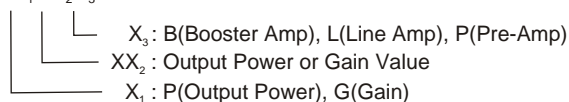
*Output power = 17dBm (@25 °C)

Mechanical Dimension (110 x 80 x 12mm)



Ordering Information

OFA - WC1 - X₁XX₂X₃



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