

FWA-1550Y Series 8/16 Ports Outdoor CATV EDFA



1. Product Description

FWA-1550Y series CATV EDFA adopt wavelength 980nm or 1480nm DFB laser with the function of high linearity, optical isolation, distributed feedback, thermoelectric cooling, which produced by JDSU and other famous semiconductor companies as the pump source. The machine is equipped with stabilization circuit for optical power output and stabilization control circuit for laser thermoelectric cooler temperature to ensure the best performance of the whole machine and the long life with stable operation of the laser. The microprocessor software monitors the working status of the laser, and the working parameters are displayed by the digital panel (VFD). Once the laser's operating parameters deviate from the allowable range set by the software, the micro-processing will automatically turn off the laser power supply, the red light flashes to indicate an alarm, and the digital panel indicates the cause of the failure. For detail report of equipment parameters, please refer to "Operation Instructions" .

2. Product Feature

- ◆ High quality: The pre-stage pump generally uses 980nm, and the post-stage pump uses 1480nm. The power is rationally optimized by software to minimize the NF of EDFA, which is comparable to the so-called low power optical amplifier and make the system get excellent CNR.
- ◆ Reliability: The biggest characteristic of the outdoor optical amplifier is that it is easy to use and is not restricted by the power supply conditions in the computer room. Among them, the power supply can be 220V AC, 60V AC or -48V DC.
- ◆ Although the product is easy to use, it is a challenge for the device to endure heat dissipation, sealing, high temperature resistance, and low temperature resistance on the harsh conditions while using. The outdoor fiber amplifier produced by FULLWELL is made of aluminum die-casting and the surface is passivated or aluminized to form a dense protective layer with good heat dissipation, conductivity, and corrosion resistance on the surface of the chassis. There is also a special aluminum box inside the product to install the pump laser, which not only protects the safety of the pump laser but also allows the laser to dissipate heat more effectively, at the same time, making the cooling and heating circuits more easily to adjust the optimal working temperature of the pump laser

and extending the pump working life of laser pump. The main original devices are made of high and low temperature resistant materials to ensure the products can work normally in environments as low as -45 degrees and as high as 85 degrees.

3. Technical Parameters

Item \ Model	FWA-1550Y Series CATV EDFA
Working Wavelength(nm)	1545~1555
Input Optical Power(dBm)	-5~+10
Nominal Input Optical Power(dBm)	+3
Noise Figure(dB) (+3 dBm, @1550nm)	3.8~5.5
Flatness(dB)	< ±0.3
Optical Power Output Stability(dB)	< ±0.5
Polarization Sensitivity(dB)	< 0.2
Polarization Mode Dispersion(ps)	< 0.5
Optical Connector (IN/OUT)	FC/APC or SC/APC
Number of Working Pump(N)	1~3
Saturated Output Power (dBm)	13~23
Power Supply (Vac)	115~265
Power Supply (Vdc)	48
Working Temperature(°C)	0~50
Size(mm)	44×482.6×387

4. Product Model Series

1 Way Output

FWA-1550Y -13 (Output Power, ≥ 13dBm, 20mW)

FWA-1550Y -14 (Output Power, ≥ 14dBm, 25mW)

FWA-1550Y -15 (Output Power, ≥ 15dBm, 32mW)

FWA-1550Y -16 (Output Power, ≥ 16dBm, 40mW)

FWA-1550Y -17 (Output Power, ≥ 17dBm, 50mW)

FWA-1550Y -18 (Output Power, ≥ 18dBm, 63mW)

- FWA-1550Y -19 (Output Power, $\geq 19\text{dBm}$, 80mW)
 FWA-1550Y -20 (Output Power, $\geq 20\text{dBm}$, 100mW)
 FWA-1550Y -21 (Output Power, $\geq 21\text{dBm}$, 125mW)
 FWA-1550Y -22 (Output Power, $\geq 22\text{dBm}$, 160mW)
 FWA-1550Y -23 (Output Power, $\geq 23\text{dBm}$, 200mW)

Multi-way Output

Model	Total Power(mW)	Output Ports	Output Power Per Port (dBm)
FWA-1550Y-27	500	4	19.5
		8	16.0
FWA-1550Y-28	630	4	20.5
		8	17.0
FWA-1550Y-29	800	4	21.5
		8	18.0
FWA-1550Y-30	1000	8	19.0
		16	15.5
FWA-1550Y-31	1250	8	20.0
		16	16.5
FWA-1550Y-32	1600	8	21.0
		16	17.5

