FWA-1550T-8xN Series, 8 ports CATV EDFA

1. Product Description

FWA-1550T series erbium and ytterbium co-doped high-power fiber amplifier is the latest optical transmission system for CATV FTTH. The optical input number: 1 port of CATV or 2 redundant CATV inputs, 8 ports outputs, of which the total output power range of 1550nm is 22 ~ 32dBm. Multiple output power can be matched according to user demand.

This series product adopts Lumentum etc multimode high power pump laser as pump source and American OFS closed beam splitter as double-cladding synthesizer. Built-in optical power output stabilization circuit and laser thermoelectric cooler temperature stabilization control circuit ensure the best performance of the EDFA and the long-term stable operation of the laser. The microprocessor software monitors the working status of the laser, and the working parameters are displayed on the digital panel (LCD). Once the laser's working parameters deviate from the allowable range set by the software, the micro-processing will automatically turn off the laser power, and the red light flashes to alert.

2. Product feature

◆ Top quality: Adopt multi-mode high-power pump laser and the power is optimized through software, which makes the system achieving excellent CNR.

◆ Reliability: Adopt 19" 1U standard chassis, built-in high performance modular switching power supply, can work in AC90～ 265V city network voltage. DC 48V hot-swappable power supply option is available as well. Dual hot and reserved power supply with Chassis automatic heat dissipation control.

◆ Intuitive: The built-in microprocessor monitors the working status of the pump laser, and the working parameters are displayed on LCD.

◆ Network management Interface: Web transponder is line with the national standard and compatible with the SCTE HMS standard, achieving WEB monitoring function. The red warning symbol is displayed on the web page, which is convenient for troubleshooting.

◆ Adjustable output optical power: Advanced design enables a large adjustable range of output power, and power can be lowered by 0 ~ -3dBm.

◆ Built-in optical switch option: There are automatic (prefer) or manual (force) switch mode when CATV signal has main path A and redundant path B optical switch input (OPT SWTTCH). Automatic mode uses the main path A by default, it switches to redundant path B if A input power fails.

Hangzhou Fullwell Optoelectronic Equipment Co.,Ltd www.fullwell.com.cn
Technical support: 0086-571-85714656, wu@fullwell.com.cn Skype: helen-fullwell
Add: A2,Qimeng Science & Innovation Park,No.1899,Gudun Road, Hangzhou helen@fullwell.com.cn

3. Technical Parameters

Items		Unit	Performance Index
Optical Operating Wavelength		nm	1535～1565
Input Optical Power Range		dBm	-10～+10
Noise Ratio		dB	≤5.0 (0 dBm,@1550nM)
Gain Flatness		dB	＜±0.3
Optical Power Output Stability		dB	＜±0.5
Polarization Sensitivity		dB	＜0.2
Polarization Mode Dispersion		Ps	＜0.5
Input End Pump Leakage Power		dB	≤-30
Output End Pump Leakage Power		dB	≤-30
Optical Input, Output Return Loss		dB	＞45（APC Stepped Face）
Pump Operating Number		PCs	1～3
Rated Output Power		dBm	22～32
Linker (IN)		-	SC/APC
Linker (OUT)		-	SC/APC
Power Supply/Consumption		V/W	AC90～265 or DC-48/20
Operating/Storage Temperature		℃	-20～65/-30～70
Operating/Storage Humidity		%	5～90
Case Size		mm	530×486×44（1U）
Network Management Connector		/	RJ45(following national network management standard, supports WEB)
Optical Switch	Insertion Loss	dB	＜1
	Harass	dB	＜-60 (isolation between A and B)
	Switch Time	ms	＜10
	Switched Power Threshold Range	dBm	-5～10

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4. Product model series

Model Number	Total Output Power dBm(mW)	Output No.	Each Output Power （dBm）
FWA-1550T-4x15	22dBm(160mW)	4	15
FWA-1550T-8x12		8	12
FWA-1550T-4x16	23dBm(200mW)	4	16
FWA-1550T-8x13		8	13
FWA-1550T-4x17	24dBm(250mW)	4	17
FWA-1550T-8x14		8	14
FWA-1550T-4x18	25dBm(320mW)	4	18
FWA-1550T-8x15		8	15
FWA-1550T-4x19	26dBm(400mW)	4	19
FWA-1550T-8x16		8	16
FWA-1550T-4x20	27dBm(500mW)	4	20
FWA-1550T-8x17		8	17
FWA-1550T-4x21	28dBm(640mW)	4	21
FWA-1550T-8x18		8	18
FWA-1550T-4x22	29dBm(800mW)	4	22
FWA-1550T-8x19		8	19
FWA-1550T-4x23	30dBm(1000mW)	4	23
FWA-1550T-8x20		8	20
FWA-1550T-4x24	31dBm(1300mW)	4	24
FWA-1550T-8x21		8	21
FWA-1550T-4x25	32dBm(1600mW)	4	25
FWA-1550T-8x22		8	22

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