FWAP-1550H Series, 40 ports PON & CATV WDM EDFA

1. Product Description

"Quality Broadband" has become the consensus of the development of the global broadband industry. Meeting the needs of users for 10G bandwidth has become a challenge for operators. To meet the challenges faced by operators, Huawei's next-generation large-capacity distributed intelligent OLT platform MA5800 provides a single service board that supports XGS-PON, XG-PON, and GPON mixed access application scenarios.

Fullwell is a certified solution partner of Huawei. In order to cater to the integration of triply play network and move towards 10G bandwidth, Fullwell has developed the product of XG (S) -PON + CATV EDFA high power EDFA. Which its CATV signals and XGS-PON, XG-PON and GPON signals can be accessed on one fiber at the same time, helping operators to create all-optical , automated and intelligent FTTH integrated access network, continuously improve user experience, enable quality broadband, help operators CATV and home broadband become possible, while reducing the cost of operator investment.

FWAP-XGS series is the latest optical transmission system equipment of XG (S) -PON + CATV FTTH / FTTP triple play network integration, and it is the function of combining OLT XG (S) -PON broadband signal and CATV 1550nm optical signal after amplification. Input ports: 1 CATV + 40 ports XGS-PON / XG-PON and GPON, combined 40 ports outputs: 1310 / 1490nm & 1270 / 1577nm + 1550nm, of which the total output power range of 1550nm is 27 ~ 45dBm. Multiply output ports can be customized. Compatible with XG (S) -PON / ONU, such as Huawei, ZTE, and Fiberhome, without losing of data, and has a high cost performance.

2. Product feature

◆ Top quality: Adopt **LUMENTUM,** ⅡⅦ multi-mode high-power pump laser and the power is optimized through software, which makes the system achieving excellent CNR AND minimizing the NF of EDFA.

◆ Reliability: It adopts a 19 " 3U telecommunication style small chassis, the depth of which is the same as that of Huawei's frame-type OLT, which is convenient for storage in the telecommunications room cabinet. It has a built-in high-performance plug-in DC 48V / AC220V dual switching power supply with Chassis automatic heat dissipation control.

◆ Intuitive: Multi-mode pump laser is the most expensive component in the device. 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

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SCTE HMS standard, achieving WEB monitoring function.

◆ Customizable 2X1 optical switch: built-in optical path selector, 2 optical inputs, can be set to manual or automatic mode for the selection of main and redundant path.

◆ Integrated WDM of XGS-PON, XG-PON and GPON, optical port: XGS-PON, XG-PON and GPON input: SC / UPC, 1 port of 1550nm CATV optical input port: SC / APC, XG (S) -PON + CATV 1550nm EDFA output optical port: SC / APC.

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	2～5
Rated Output Power		dBm	27～45
Linker(IN)		-	SC/APC
Linker(OUT)		-	SC/APC
Power Supply/Consumption		V/W	DC-48/20,AC90~265/20
Operating/Storage Temperature		℃	-20～65/-30～70
Operating/Storage Humidity		%	5～90
Case Size		mm	530×486×88 (3U)
Network Management Connector		/	RJ45(following national network management standard, supports WEB)
	XG(S)- PON Wavelength	nm	1310/1490 & 1270/1577
	XG(S)- PON Linker	/	SC/UPC
	Uplink optical ports	ports	40
	Output ports	ports	40
	XG(S)- PON Insertion Loss	dB	＜1.2
	1550 Port Insertion Loss	dB	＜0.7
	Optical isolation between CATV&OLT	dB	40
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

Type	Total output power dBm(mW)	Output No.	Each Output(dBm)
FWAP-1550H-40x15	33dBm(2000mW)	40	15
FWAP-1550H-80x11		80	11
FWAP-1550H-40x16	34dBm(2500mW)	40	16
FWAP-1550H-80x12		80	12
FWAP-1550H-40x17	35dBm(3000mW)	40	17
FWAP-1550H-80x13		80	13
FWAP-1550H-40x18	36dBm(4000mW)	40	18
FWAP-1550H-80x14		80	14
FWAP-1550H-40x19	37dBm(5000mW)	40	19
FWAP-1550H-80x15		80	15
FWAP-1550H-40x20	38dBm(6000mW)	40	20
FWAP-1550H-80x16		80	16
FWAP-1550H-40x21	39dBm(8000mW)	40	21
FWAP-1550H-80x17		80	17
FWAP-1550H-40x22	40dBm(10000mW)	40	22
FWAP-1550H-80x18		80	18