

receiving power is larger than +2dBm, the yellow indicator lights on to show the optical signal is too high. When the light receiving power is less than -15dBm, the red indicator lights on to show the optical signal is too small. If the light receiving power is in the range of +2 ~ -15dBm, the green indicator lights on to show the optical signal is receiving normally.

PON: PON port connect next to ONU, please don't take off the port cover when no use.

4. Install Test Matter Need Attention

4.1. FWR-XGS-8610W device is indoor type structure, not to be used in place of harassment by the rain. Packed in the box of the indoor appropriate space for cooling. The output of the cable shielding network must be grounded, grounding resistance should be less than 4 Ω. The local power supply for electrical shell has to be grounded above ground resistance.

4.2. Patch cord fiber input and output cable has to be reserved certain use, FWR-XGS-8610W device is with SC/APC, PON link with SC/APC.

5.Attachment

Name	Model	QTY	Notes
Optical Receiver	FWR-XGS-8610W	1	Main Device
Power Adapter	DC5V 500mA	1	IN:AC100~240V
Instructions		1	Included CQ

6.Certification

Certification			
Checker	J8	DATE	



FWR-XGS-8610W

FTTH WDM OPTICAL RECEIVER



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FWR-XGS-8610W WDM Optical Receiver Instructions

1. Introduction

Fiber to the home (FTTH) broadband access is the ultimate development goal, FWR-XGS-8610W optical receiver is the target terminal products for this goal. FWR-XGS-8610W device adopts technology of high isolation WDM in order to separate CATV and XGS-PON ONT signal. This device can be used together with Fullwell XGS-PON ONT FWXG-890SG. Furthermore, it also adopts low optical power receiving and RF-AGC control technique, which could achieve the requirement of $\leq -2\text{dBm}$ CATV receiving for FTTH. The optical power receiving monitoring indicator LED ($\geq -15\text{dBm}$) is provided on the panel and it supports RF outputs constantly , convenience of customer's use, which is the ideal receiver equipment for FTTH.

2. Main Performance Parameters

	Item	Unit	Performance Parameter
Optical characteristic	Input Wavelength	nm	1310/1490,1550,1270/1577
	Output Wavelength	nm	1310/1490,1270/1577
	Operating Wavelength	nm	1540~1560
	Channel Separation	dB	$\geq 40(1310/1490\text{nm}+1550\text{nm})$
	Response	A/W	≥ 0.9
	Receive Power Range	dBm	-2~-18
	Reflection Loss	dB	≥ 55
	Fiber Connector	/	SC/APC
	XGS-PON Connector	/	SC/APC
RF charac	Bandwidth/Flatness	MHz/dB	47-1000/ $\leq \pm 1$

teristic	Output Level	dBuv	AGC: $82\pm 1/(-2\sim -12\text{dBm})$	
	Reflection Loss	dB	≥ 14	
	RF Output Interface	/	Inch (one way output)	
	CNR	dB	≥ 44	(-9dBm receiving, PAL-D 60CH, OMI3.8%)
	CTB/CSO	dB	$\geq 55/\geq 55$	
	MER(Closed Equalization)	dB	$\geq 25(64\text{QAM})$ $\geq 31(256\text{QAM})$	-12dBm Reception, Optical Link 94 Digital Channels
	MER(Open Equalization)	dB	$\geq 32(64\text{QAM})$ $\geq 34(256\text{QAM})$	
Bit Error Rate(BER)	/	$\leq 1\times 10^{-4}$	Measure at Least 100Bits	
Other requirement	Power Supply/Consumption	V/W	External AC100~240V→DC5/5	
	Working/Storage Temperature	°C	-35~50/-40~75(humidity 5~90%)	
	Dimension	mm	80×55×25	

3. Direction for Use

3.1 Power Input

POWER IN : FWR-XGS-8610W is the external power supply input port, First should be the DC+5 V external voltage stabilizer output line connected to the device POWER IN, then put DC+5V external mano-stat insert 100/240V, DC5V face posted power light, show power part is regularly working.

3.2 Optical Fiber Input

OPTICAL IN: FWR-XGS-8610W is input interface of optical signal, in optical access should clean APC TOP by alcohol, then align adapter sunken mouth, fiber mouth march link. When the light