

65-75dbuv. In the application process, the RF output level will change with the change of the modulation system of the optical transmitter, and the output level $\pm 3\text{dB}$ is normal. When the optical signal is input into $>0\text{dBm}$, the RF output level will increase accordingly, and its change is optical signal $+1\text{dB}$, RF Level $+ 2 \text{ db}$; When the optical signal input $< -8\text{dbm}$, the RF output level will decrease, and its change is optical signal -1db , RF level -2db . The sat-if signal is affected by climate, and the level fluctuation often occurs when it is transmitted to the optical generator. CNR, MER and other indicators are degraded, and they will also be affected after the transmission of light.

4.Precautions for installation and debugging

1) the machine is of indoor structure and cannot be used in places that are easy to be disturbed by rain; In the indoor box to have appropriate space, to facilitate heat dissipation; Output cable shielding network must be grounding, grounding resistance should be less than 4Ω , on-site power supply for electrical shell must be grounded, grounding resistance.

2) a certain length of tail fiber input and cable output must be reserved to reduce the occurrence of accidents; If the optical interface is not used for the time being, please do not remove the sealing. SC/ APC head is used with this machine IN, and SC/UPC head is used with PON. Do not connect with other end heads.

5.Attachment

Name	Model	QTY	Notes
Optical Receiver	FWR-XGS-2600W	1	Main Device
Power Adapter	DC5V 500mA	1	IN: AC100~240V
Instructions		1	Included CQ

6.Certification

Certification			
Checker	J8	DATE	



CATV + SAT-TV & XGS-PON WDM OPTICAL RECEIVER

FWR-XGS-2600W



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FTTH CATV + SAT-TV & XGS-PON WDM Optical Receiver Instructions

1. Introduction

FWR-XGS-2600W optical receiver is an FTTH CATV+SAT-TV high-performance optical transmission equipment, suitable for cable TV and satellite live TV transmission on the same network. This machine selects the high bandwidth, high sensitivity photoelectric cell, and low noise matching circuit, all Shen gallium IC amplifier, light receiving range - 15 ~ + 2dBm, electric AGC - 8 ~ 0dBm/RF80dBuV constant output. For the convenience of users, the machine is also equipped with working power and light power receiving and monitoring LED indicator light on the panel. FWR-XGS-2600W is a optical receiver which can meet the needs of FTTH fiber to household in CATV+SAT-TV & XGS-PON optical network to receive 1550nm CATV+SAT-TV signal and output XGS-PON signal (1310/1490nm & 1270/1577nm), while FWR-XGS-2600W is a WDM optical receiver with XGS-PON interface.

2. Main Technical Parameter

Item	Description	Remark	
Input Optical Power Range	-15~+2dBm		
	AGC: -8~0dBm		
Responsivity	≥0.9A/W		
Optical Return Loss	≥45dB	SC/APC	
Input wavelength	1310/1490,1550,1270/1577	CATV+SAT-TV&XGS-PON	
Output wavelength	1310/1490, 1270/1577	XGS-PON	
Receive Wavelength	1540~1560		
Frequency Range	45-2400MHz	CATV & SAT-TV	
CATV	Flatness	±1.0dB(47~1000MHz)	
	Output Level	≥80dBμV	-8~0dBm/AGC
	CNR/CSO/CTB	≥50dB/≥60dB/≥65dB	-1dBm input power
	MER/BER	≥32(64QAM)/≤1×10 ⁻⁴	-12dBm
	Return Loss	≥14dB(47~1000MHZ)	Output Impedance/75Ω
	AGC Stability	±1dB(-8~0dBm)	
SAT	Flatness	±1.5dB(950~2400MHz)	It varies with the input level.

TV	Output Level	≥80dBuV	-8~0dBm/AGC
	Return Loss	≥10dB(950~2400MHz)	Output Impedance/75Ω
	AGC Stability	±1dB(-8~0dBm)	
RF Connector		F-female	
Optical Connector		SC/APC	
PON Connector		SC/UPC	Depending on the user's choice
Power Supply		5V/500mA	outlay AC90 ~ 255V→DC5V
Power Consumption		<2W	
Working / storage temperature		-5~45℃/-25~75℃	5~90 (Non-condensation)
Dimensions		80×55×25mm	Iron box structure

3. Instructions for use

3.1 Power connection

DC5V: FWR-XGS-2600W is the input port of the external POWER supply. First, connect the output line of the DC5V external stabilized POWER supply to the DC5V port of the machine. Then, insert the DC5V external stabilized POWER supply into the mains 90/255V.

3.2 Optical fiber access

FWR-XGS-2600W IN: CATV+SAT-TV & XGS-PON Optical signal input interface. Prior to Optical access, the APC head should be cleaned with alcohol cotton ball, and then connected with adapter notch and tail fiber head flange. When the light receiving power is greater than +2 dBm, the yellow indicator light is on to show that the light signal is too high. When the light receiving power is less than -15dbm, the red indicator lights up to show that the light signal is too small or no signal. If the light receiving power is within the range of +2 ~ -15dbm, the green indicator lights up to show that the light signal is normally received. FWR-2600W model has XGS-PON port, which can be connected to XGS-PON ONU. The insertion loss is less than 0.8db, so it is not necessary to remove the dust jacket temporarily.

3.3 RF output

RF OUT is the RF output port of the machine. When the optical signal input is -8 ~ 0dBm, CATV RF output is 80 dBuV, and sat-if outputs a certain level value between

