

WR1001J Optical Receiver

1 Product Overview

WR1001J 1GHz FTTB optical receiver, with wide range receiving optical power, high output level and low power consumption. Built-in single chip microcomputer and embedded program, can monitor various parameters in the machine, cooperate with key operation to realize electric control EQ and ATT adjustment.



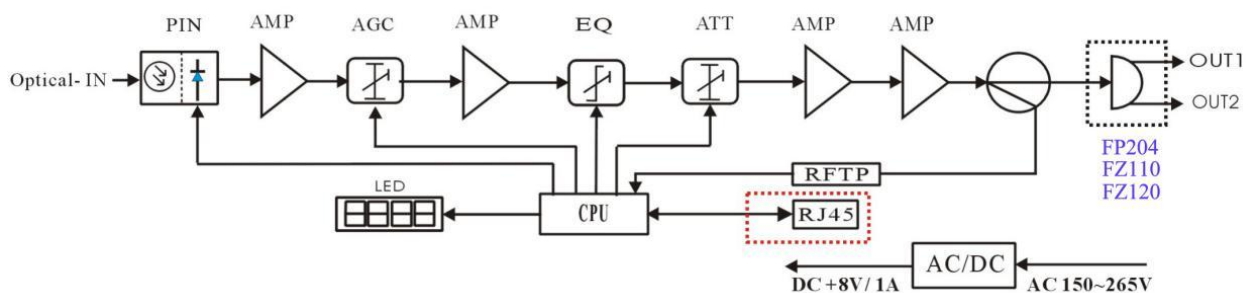
There are three models optional:

NC	Operating wavelength :1100 ~ 1620nm.
WF	Built-in optical filter , operating wavelength:1550nm.
WD	Built-in WDM , operating wavelength:1550nm , PON wavelength 1310/1490nm looping out.

2 Features

- With optical AGC function, range adjustable.
- Full MMIC amplification circuit, low power consumption.
- Electric control ATT and EQ, 0~15dB.
- Can be equipped with Ethernet transponder, support remote network management (optional);
- Metal shell, good heat dissipation and durability.
- Built-in high reliability power supply.
- Various outputs are optional.
- Can be equipped with WDM, PON wavelength looping out.(optional).

3 Block Diagram

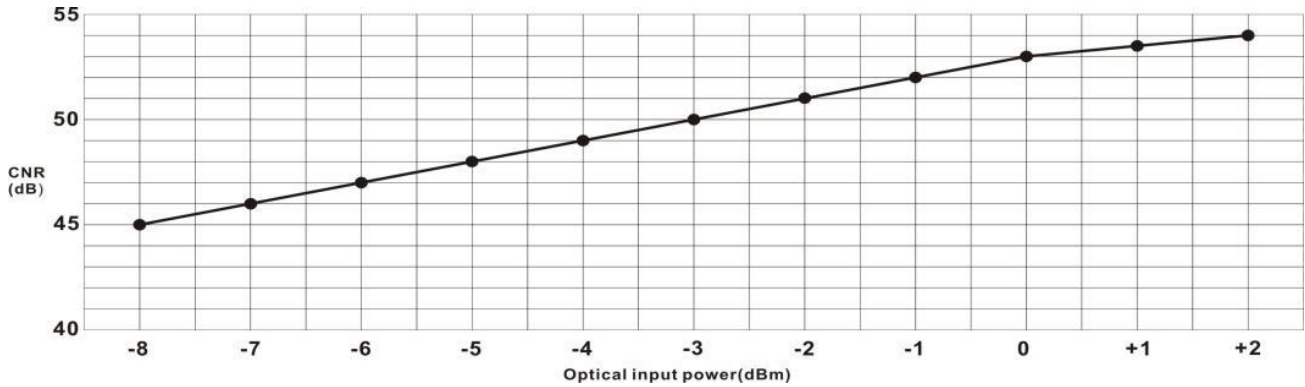


Note: The part in dashed box is optional.

4 Technique Parameter


Item	Unit	Technical Parameters	
Optical Parameters			
Receiving Optical Power	dBm	-9 ~ +2	
Optical AGC range	dBm	(-9dBm/-8dBm/-7dBm/-6dBm/-5dBm/-4dBm) ~ (+2dBm) adjustable	
Optical Return Loss	dB	>45	
Optical Receiving Wavelength	nm	1100 ~ 1600	
Optical Connector Type		SC/APC or specified by the user	
Fiber Type		Single mode	
RF Parameters			
Frequency Range	MHz	45 ~860/1003	
Flatness in Band	dB	±0.75	
Rated Output Level	dBμV	≥ 108	FZ110output
		≥ 104	FP204output
Max Output Level	dBμV	≥ 108	FZ110output, -9 ~ +2dBm
Output Return Loss	dB	≥16	
Output Impedance	Ω	75	
Electrical control EQ range	dB	0 ~ 15	
Electrical control ATT range	dB	0 ~ 15	
C/N	dB	≥ 51	59PAL-D+QAM256, -1dBm optical receiving, FZ110 108dBuV output, EQ 8dB
C/CTB	dB	≥ 60	
C/CSO	dB	≥ 60	
General Characteristics			
Power Voltage	V	AC (150~265) V or DC 12V/1A External power supply	
Operating Temperature	°C	-40~60	
Power Consumption	VA	≤ 8	
Dimension	mm	190 (L) * 110 (W) * 52 (H)	

5 Relation Table of Input Optical Power and CNR




6 Function Display and Operating Instruction

Mode: Mode selection button, total eight modes. Press the mode selection button to enter the corresponding status display, eight modes to cycle. The following is the detailed instructions:


Mode 1:  Input optical power (unit dBm)

Lo: Means that the optical power is low or none


1: Means that the displayed data is the input optical power

Mode E1:  RF equilibrium, if need adjustment ,press the ▲ or ▼ button for a few seconds until the data flicker. Then can be adjusted by ▲ or ▼ button and press “Mode” to confirm. The maximum range is 15dB.


E1: EQ mode, means that the controlled and displayed data is the RF channel equilibrium.

Mode A1:  RF attenuation, if need adjustment ,press the ▲ or ▼ button for a few seconds until the data flicker. Then can be adjusted by ▲ or ▼ button and press “Mode” to confirm. The maximum range is 15dB.

A1: ATT mode, means that the controlled and displayed data is the RF channel attenuation.

Mode 2:  The actual number of channels enters into the current network system. If need adjustment ,press the ▲ or ▼ button for a few seconds until the data flicker. Then can be adjusted by ▲ or ▼ button and press “Mode” to confirm. The maximum number is 200.

2: The menu is used to display the actual number of channels enters into the current network system, in order to calculate the RF output level more accurately.

Mode 3:  RF output level (unit dBuV)

3: Means that the displayed data is the RF output level under the current system.

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Mode 4: 

Working temperature (unit °C)

4: Means that the displayed data is the internal actual ambient temperature.

Mode 5: 

The actual value of +8V working voltage

5: Means that the displayed data is the actual voltage of +8V

Mode AG: 

AGC adjustment range (adjustment range -4~-9dBm)

AG: Means that the AGC range under the current system is +2~-9dBm. If need adjustment, press the ▲ or ▼ button for a few seconds until the data flicker. Then can be adjusted by ▲ or ▼ button and press "Mode" to confirm.

For example, if the displayed data is -4, means that the AGC range is +2~-4dBm; If the displayed data is -5, means that the AGC range is +2~-5dBm; and so on. The adjustment range is -4~-9.

Note: AGC range per reduce 1 dBm, the output level is raised by 2 dBuV.

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