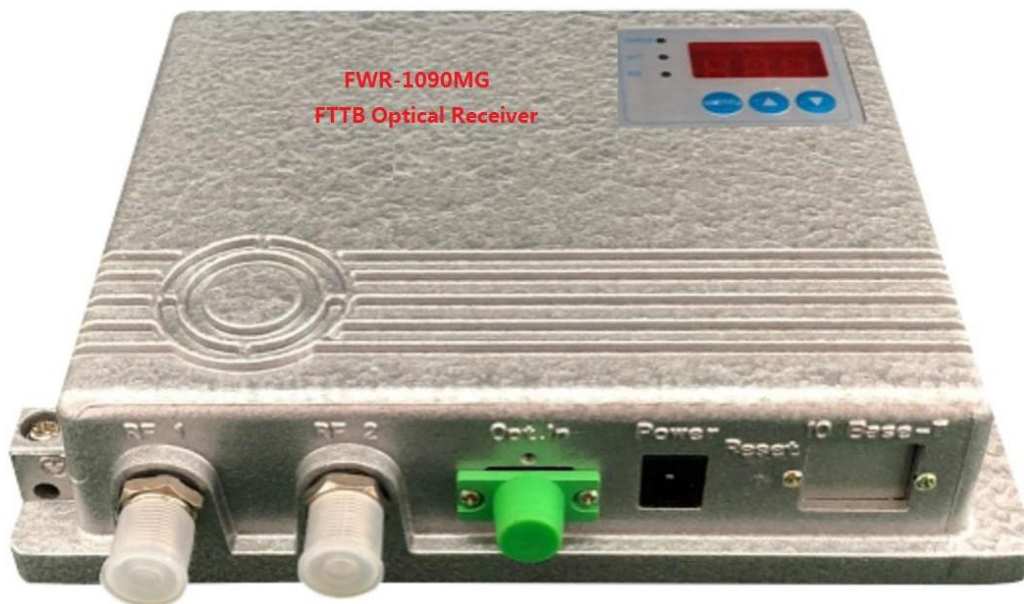


## FWR-1090MG, FTTB Optical Receiver



### 1. Product Description

The FWR-1090MG building optical receiver is a low-power optical receiving product designed to adapt the optical passive (PON) access network fiber to the building (FTTB). This device adopts highly sensitive optical phototube, low noise gallium arsenide amplifier chip in preposition and gallium arsenide push-pull amplifier circuit in last stage which provides maximum output level over  $2 \times 102 \text{ dBuV}$ . This machine is also equipped with high-precision switching power supply, AGC automatic output level control, optical receiving power, RF output signal attenuation and equalization digital display. Due to the superior performance of the main components and the carefully designed circuit coordination, the performance index and superior reliability of the whole device are guaranteed.

### 2. Product Feature

- ◆ PIN optical receiving power,  $-1 \text{ dBm}$  receiving sensitivity, AGC receiving range:  $+2 \sim -7 \text{ dBm}$ , output stable level:  $2 \times 102 \text{ dBuV}$  or  $1 \times 104 \text{ dBuV}$ .
- ◆ Wide bandwidth type:  $47 \sim 1000 \text{ MHz}$  working bandwidth.
- ◆ The setting function keys composed of up and down can achieve the adjustment of equalization and output level. When pressing the setting button of equalization, the light is on and LCD displays the output signal equalization, you can adjust it according to the design requirements. While pressing the set button of RF output attenuation, the light is on and LCD displays output level attenuation value, you can adjust the attenuation value according to the design requirements.
- ◆ This device is usually installed in the chassis, the chassis shell must be grounded, the grounding resistance should be less than  $4\Omega$ . The power supply shell of the feeder must also be grounded, the grounding resistance is the same as above, and the cable, power supply shell and the device shell should be connected at the same position, the chassis must be grounded before it is powered by city network voltage.

**3. Technical Parameters**

Items	Unit	Parameter
Optical Wavelength/ Optical Connector	nm	1300 ~ 1560nm, SC/APC or FC/APC
Return Loss	dB	≥45 (APC interface)
Optical Input Power Range	dBm	-9 ~ +2dBm (receiving -4 ~ -6dBm suggested)
Frequency Range/Flatness	MHz/dB	47 ~ 862 or 1000/±0.75
Output Level	dBuv	2×10 <sup>2</sup> or 1×10 <sup>4</sup>
Equivalent Output Noise Current	√Hz/PA/	≤8
AGC Feature	dB	-7 ~ +2dBm/nominal output level±1
C/N	dB	≥47 (-1dBm receiving)
CTB/CSO	dB	65/60 (when output level at nominal)
Attenuation/Equalization	dB	0 ~ 10
Return Loss of RF Port	dB	≥16(47 ~ 1000)MHz
RF Connector		FL-10 Male or Female
Operation & Storage Temperature	°C	-20 ~ +60/-35 ~ +75
Power Supply /Consumption	V/W	AC220V → DC12V/5
Surge Protection	Kv	3
Dimension/Assembly Size	mm	163X125X40/155 (Φ4 ~ Φ5)

**4. Product Model Series**

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