

FWR-8610R Filter Optical Receiver



1. Product Description

In order to refine the triple play integrated equipment and reduce operator investment costs, in the single-fiber three-wave home solution, some users, such as the elderly users, do not use broadband signals and only use CATV signals. In response to the requirements of this solution, Fullwell has produced industry-leading triple play optical receiver with filter series products.

FWR-8610R uses high isolation and filtering technology to separate CATV from triply play waves. It only receives 1550nm CATV signal. It uses high-bandwidth, high-sensitivity photocells, low-noise matching circuits, GaAs amplification, low optical power receiving and RF-AGC technology. Receiving power range from -18 to + 2dBm, Light control AGC: -12~-2dBm, RF rated output 82dBuV.

The FWR-8610R is also equipped with an optical power receiving monitoring LED indicator ($\geq -15\text{dBm}$) on the panel. FWR-8610R filter-type optical receiver, using high-quality power adapter designed for 5 years of non-stop work, is an ideal optical receiver with filter for FTTH single fiber to the home network.

2. Product Feature

- ◆ PIN optical receiving power, -1dBm receiving sensitivity, AGC receiving range: -2 ~ -12dBm, output stable level: 82dBuV.
 - ◆ Wide bandwidth type: 47 ~ 1000MHz working bandwidth.
 - ◆ One fiber can receive long-range CATV RF signal and filter out PON signal that has an effect on CATV signal.
 - ◆ It can be used along with the FULLWELL optical transmitter and WDM EDFA for FTTH triple play transmission and coverage.
 - ◆ Industry-leading 5V power adapter, non-stop work design for more than 5 years.
- Can be compatible with any FTTx PON triple play optical network.
- ◆ Plastic enclosure with white top cover and black base, exquisite texture appearance, to demonstrate brand strength.

3. Technical Parameters

Items	Unit	Parameter	
Input Wavelength	(nm)	1310,1490,1550	
Operation Wavelength	(nm)	1540 ~ 1560	
Channel Separation	(dB)	≥40 (1310/1490nm and 1550nm)	
Responsivity	(A/W)	≥0.9	
Receiving Power Range	(dBm)	+2 ~ -18	
Reflection Loss	(dB)	≥55	
Fiber Link	/	SC/APC	
Bandwidth/Flatness	MHz/dB	47-1000/±1	
Output Level	dBuv	1 RF	AGC: 82±1/(-2 ~ -12dBm)
		2RF(Optional)	AGC: 78±1/(-2 ~ -12dBm)
Adj. Range of Output Level	dB	0 ~ 15(Customized)	
Reflection Loss	dB	≥14(75Ω Characteristic Impedance)	
RF Output Interface	/	1 Way Output Male (or Two-Way Output or Female)	
CNR/MER	dB	≥44/34(PAL-D 60CH, OMI3.8%, -9dBm)	
CTB/CSO/HUM	dB	≥65/≥60/≥60(-1dBm Receive)	
Power Supply/Consumption	V/W	AC100 ~ 240V→DC5/3	
Working/Storage Temperature	°C	-35 ~ 50/-40 ~ 75 (Humidity 5 ~ 90%)	
Dimension	mm	95×92×23	

4. Product Model Series

FWR-8610R, optical receiver with filter, customized items are as follows:

RF Output Interface	Output Level Adjustable	Model
1RF	--	FWR-8610R
	ADJ	FWR-8610R(ADJ)
2RF	--	FWR-8610R(2*RF)

