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FWR-8610RW

FTTH WDM OPTICAL RECEIVER

**UNYx**



# FWR-8610RW WDM Optical Receiver Instructions

## 1. Introduction

Fiber to the home ( FTTH ) broadband access is the ultimate development goal, FWR-8610RW optical receiver is the target terminal products for this goal. FWR-8610RW device adopts technology of high isolation WDM in order to separate CATV and ONU signal. Further more, it also adopts low optical power receiving and RF-AGC control technique, which could achieve the requirement of  $\leq -12\text{dBm}$  CATV receiving for FTTH. The optical power receiving monitoring indicator LED (  $\geq -15\text{dBm}$  ) is provided on the pane and it supports RF outputs constantly , convenience of customers use, which is the ideal receiver equipment for FTTH.

## 2、 Main Performance Parameters

|                           | Item                     | Unit       | Performance Parameter                             |
|---------------------------|--------------------------|------------|---|
| Optical<br>characteristic | input wavelength         | (nm)       | 1310/1490,1550                                    |
|                           | Output wavelength        | (nm)       | 1310/1490   |
|                           | operation wavelength     | (nm)       | 1540~1650   |
|                           | channel separation       | (dB)       | $\geq 40$ ( 1310/1490nm and 1550nm )              |
|                           | response                 | (A/W)      | $\geq 0.9$  |
|                           | receive power range      | (dBm)      | +2~-15  |
|                           | reflection loss          | (dB)       | $\geq 55$   |
|                           | fiber linker             | /          | SC/APC  |
|                           | PON linker               | /          | SC/UPC  |
| RF<br>characteristic      | Bandwidth/<br>flatness   | MHz/d<br>B | 47-1000/ $\leq \pm 1$                             |
|                           | output level             | dBuv       | AGC: $82 \pm 1 / (-2 \sim -12\text{dBm})$         |
|                           | reflection loss          | dB         | $\geq 14$ ( $75\Omega$ characteristic impedance ) |
|                           | RF output interface      | /          | Inch (one way output)                             |
|                           | CNR/MER                  | dB         | $\geq 44/34$ (PAL-D 60CH, OMI 3.8%, -9dBm)        |
|                           | CTB/CSO/HUM              | dB         | $\geq 65/\geq 60/\geq 60$ (-1dBm receive)         |
| Other<br>requirement      | power supply/consumption | V/W        | External AC90~255V→DC5/2                          |
|                           | working/storage          | °C         | -35~50/-40~75(humidity 5~                         |

|  |             |    |          |
|--|-------------|----|----------|
|  | temperature |    | 90%)     |
|  | size        | mm | 95×92×23 |

### 3. Direction for Use

#### 3.1 Power Input

POWER IN:FWR-8610RW 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,than put DC+5V external mano-stat insert 100/240 V,DC5V Face posted power light, show power part is regularly working.

#### 3.2 Optical Fiber Input

OPTICAL IN:FWR-8610RW is input interface of optical signal,in optical access should clean APC TOP by alcohol ,than aligadapter sunken mouth, fiber mouth march link; when the light 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-8610RW 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 4Ω,The local power supply for electrical shell has to be grounded,Above ground resistance.

4.2. Tail fiber input and output cable has to be reserved certain use, FWR-8610RW device is with SC/APC,PON link with SC/UPC.

### 5.Attachment

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