

# ZISA RX100

## WDM Optical Receiver

Input 1550/1490/1310nm, Output 1490/1310nm and CATV



RF

### 1. Introduction

Fiber to the home ( FTTH ) broadband access is the ultimate development goal, RX100optical receiver is the target terminal products for this goal. RX100 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  $\leq -9\text{dBm}$  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 charac teristic	input wavelength	(nm)	1310,1490,1550
	Output wavelength	(nm)	1310,1490
	Operation wavelength	(nm)	1540~1560
	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
RF charac teristic	Bandwidth/flatness	MHz/dB	47-1000/ $\leq \pm 1$
	output level	dBuV	AGC: $78 \pm 1 / (-2 \sim -12\text{dBm})$
	output level adjustment	dBm	0~-18
	reflection loss	dB	$\geq 14$ ( $75\Omega$ characteristic impedance )
	RF output interface	/	Metric (two way output)
	CNR/MER	dB	$\geq 44/34$ (PAL-D 60CH, OMI3.8%, -9dBm)
CTB/CSO/HUM	dB	$\geq 65/\geq 60/\geq 60$ (-1dBm receive)	

Other requirement	power supply/consumption	V/W	External AC100~240V→DC12/5
	working/storage temperature	°C	-35~50/-40~75(humidity 5~90%)
	size	mm	130×60×22

### 3. Direction for Use

#### 3.1 Power Input

POWER IN: RX100 is the external power supply input port, First should be the DC+12 V external voltage

#### 3.2 Optical Fiber Input

OPTICAL IN: RX100 is input interface of optical signal, in optical access should clean APC TOP by alcohol, then align adapter sunken mouth, fiber mouth march link; when optical signal accesses ( $\geq -15\text{dBm}$ ) then lights on in panel, which shows optical part is regularly working; lights will be changed by receive power as yellow ( $> -2\text{dBm}$ ), green ( $2 \sim -12\text{dBm}$ ) and red ( $< -12\text{dBm}$ ). ONU is 1490/1310nm connection interface, please do not take off the cover before you use.

#### 3.3 RF Output Level Adjustment

RFOUT: RX100 is RF output port, when optical input  $-2 \sim -12\text{dBm}$ , RF output  $78\text{dBu} \pm 1$ ; ADJ: it is RF Output level attenuator, default value is the minimum. When the output level and the design requirements has any deviation, it can adjust the attenuation amount, with the design requirements. This device is low optical power receive, suggest  $-12 \sim -9\text{dBm}$  advisable.

### 4. Install Test Matter Need Attention

4.1. RX100 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  $4 \Omega$ , 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 length, Reduce accident's occurrence; optical interface do not move if not use, RX100 device is with SC/APC, do not link with SC/UPC.

### 5. Attachment

RX100 power supply, AC100~240V DC12V500mA 1PCS.

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