Optical Receiver

Specification

I. Product Description:

The optical receiver is a home-type optical receiver designed to meet the needs of modern HFC broadband transmission networks. The frequency bandwidth is 47-1003MHz.

II. Functional characteristics:

- ✧ 47MHz to 1003MHz frequency bandwidth with built-in WDM;
- ✧ Built-in optical AGC control circuit to ensure stable output level
- ✧ Adopt high efficiency switching power adapter with wide voltage adaptation range;
- ✧ ultra-low current and ultra-low power consumption;
- ✧ Optical power alarm adopts LED indicator display;

III. Product overview

Optical Receiver Specifications

Ser.	Projects	Technical Parameters	Note
1	CATV Received Wavelength	1550±10nm	
2	PON Received Wavelength	1310nm/1490nm/1577nm	
3	Channel Separation	>20dB	
4	Optical reception responsivity	0.85A/W(1550nm typical value)	
5	Input optical power range	-20dBm~+2dBm	
6	Fibre type	single mode(9/125mm)	
7	Fibre optic connector types	SC/APC	
8	Output Level	≥78dBuV	
9	AGC realm	-15dBm~+2dBm	Output level±2dB
10	F-type RF connector	Fractional	
11	Frequency bandwidths	47MHz-1003MHz	
12	RF in-band flatness	±1.5dB	
13	System impedance	75Ω	
14	reflective loss	≥14dB	
15	MER	≥35dB	
16	BER	<10-8	

WDM Performance Notes

Parameters	Notation	Min.	Typical value	Max.	Unit	Test conditions
Transmission working wavelength	λ 1	1540	1550	1560	nm	
Reflected operating wavelength	λ 2	1260	1310	1330	nm	
	λ 3	1480	1490	1500	nm	
	λ 4	1575	1577	1650	nm	
responsiveness	R	0.85	0.90		A/W	po=0dBm λ =1550nm
transmission isolation	ISO1	30			dB	λ =1310&1490&1577nm
Reflectance	ISO2	18			dB	λ =1550nm
return loss	RL	−40			dB	λ =1550nm
Insertion Losses	IL			1	dB	λ =1310&1490&1577nm

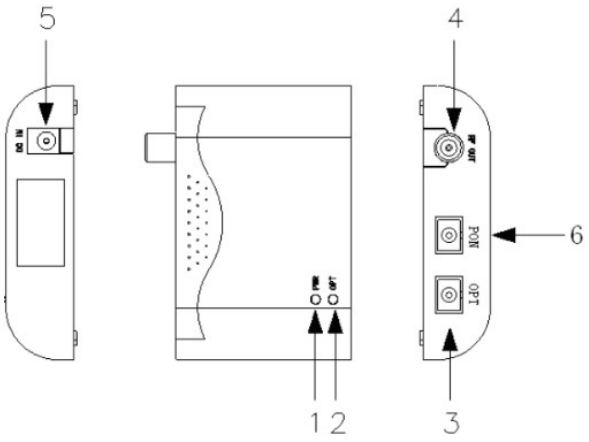
① Physical parameters

Sizes：95mm ×71mm ×25mm Weight: 75g max.

② Usage environment

Conditions of use:	Temp： 0℃——+45℃	Humidity level：40%——70%	non-condensing
Storage conditions:	Temp：-25℃——+60℃	Humidity level：40%——95%	non-condensing
Power supply range:	Import: AC 100V-~240V	Output: DC +5V/500mA	

IV. Interface and instructions for use



1. +5V DC power indicator
2. Received optical signal indicator, when the received optical power is less than -15 dBm indicator lights red, when the received optical power is greater than -15 dBm Indicator light is green
3.Fibre optic signal access port, SC/APC
4. RF output port
5. DC005 power supply interface, connect to power adapter +5VDC /500mA
6. PON reflective end fibre signal access port, SC/APC

Usage:
1, Connection: Insert the optical fibre connector into the optical fibre access port of the optical receiver, and the RF signal connection line is connected to the F head and tightened.
2, power on the work: optical fibre and RF cable is connected, plug in the power cord.
3, receiving optical signal indicator: the indicator light is green for the best working condition.