

Introduction

1.1 Product Description

The V8601C is a mini in-door optical receiver build in WDM, design for FTTP/FTTH transmission applications. It delivers excellent frequency and distortion responses with low noise, high RF output, and low power consumption. The V8601C package is single mode fiber-pigtailed and is available with various connector options.



Figure 1 1 RF Output

Features

- ✓ 1 GHz operating bandwidth
- ✓ Lower input optical range:+2~-20dBm
- ✓ Output level up to 75dBuV (@-15dBm power input);
- ✓ 2 RF Output optional(2*71dBuV)
- ✓ Low power consumption<1.0W;

1.2 Product Categories

Product model	Specifications Describe
V8601C-1	1 RF Output, with WDM
V8601C-2	2 RF Output, with WDM

Table 1 Product categories

1.3 Block Diagram

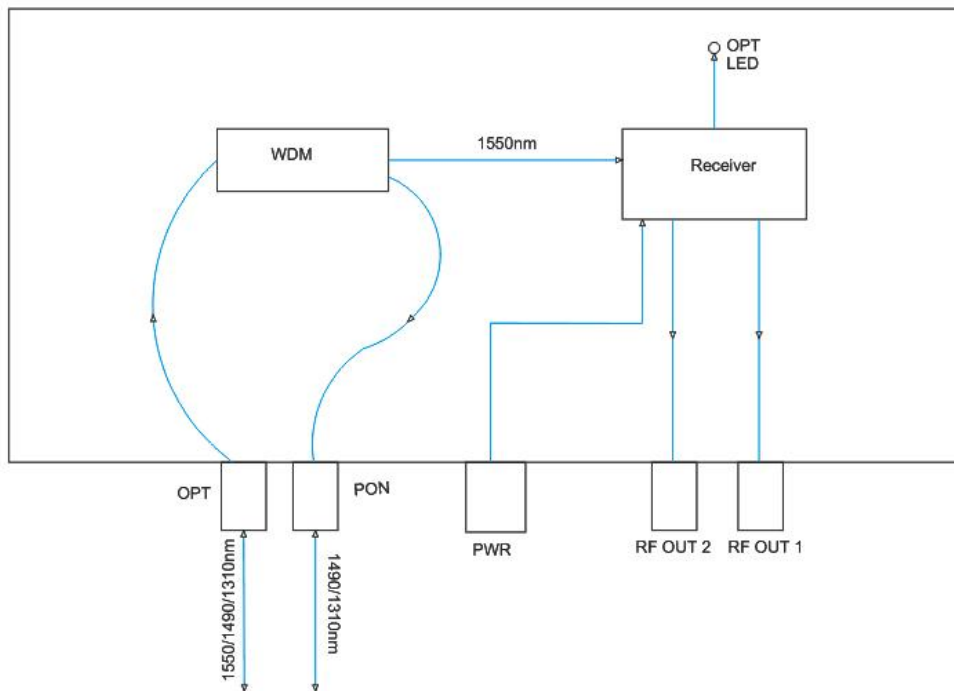


Figure 3 Block Diagram

1.4 Technical Parameters

Item	Description	Value	Unit	Conditions / Notes
Optical Specifications (Forward Path)				
1	Wavelength	1550/1490/1310	nm	Com port
		1490/1310	nm	For ONT
2	Optical Power Input Range	+2~-20	dBm	
3	AGC Range	+2~-15	dBm	
4	Optical Input Return Loss	≥45	dB	
RF Specifications (Forward Path)				
4	Bandwidth	47~1003	MHz	
5	Flatness	±1.0	dB	47~1003MHz, At 25 °C
6	Slope	0~2.0	dB	47~1003MHz, At 25 °C
7	Temperature Stability	±1.5	dB	In the operating temperature range (-25 ~ +65 °C)
8	Output Level	75±2	dBuV	-15dBm input optical power, The analog channel , per channel modulation 4.0%, in the 860MHz point test, at 25°C

9	Impedance	75	Ohm	
10	Return Loss (47 ~ 1000MHz)	≥12	dB	At 25 °C
11	MER	≥30	dB	-15~-5dBm input optical power
		≥24	dB	-20~-16, input optical power
12	Power	< 1.0	W	
Environmental Parameters				
13	Operating Temperature	-25~65	°C	
14	Storage Temperature	-40~70	°C	
15	Storage Humidity	≤95	%	Non- condensation
User Interface				
16	Optical Connector Type	SC/APC in, SC/PC out		SC Optional, See the figure4 and5
17	Power supply	DC5V/0.5A		External adapter, See the figure3
18	RF Output	RG6 Connector		Optional, See the figure1 and2
		1 or 2 ports		
19	Optical Indicator	Shine Red or Green color		Optical power <-16dBm ,red Optical power >-16dBm ,green See the figure6
20	Housing	90×85×25	mm	
21	Weight	0.15	kg	

Table 2 Technical parameters

1.6 Interface Description

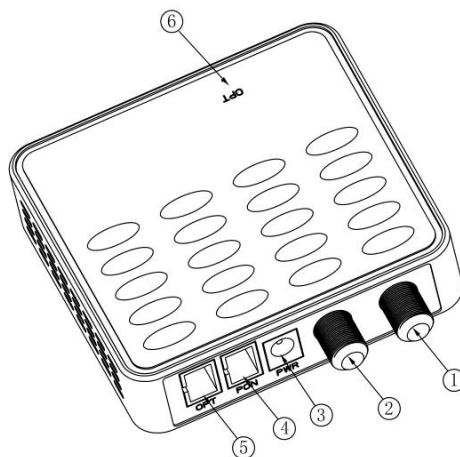


Figure 4 Interface Description

Port Type	Function	
1	RF OUT	RF OUT1 F connector
2		RF OUT2 optional
3	PWR	Power adaptor port
4	PON	1490/1310nm data interface SC/PC
5	Optical Input	1550/1490/1310nm Optical input SC/APC
6	OPT	LED Indicator

Table 3 Interface description