

TKS FTTH Optical Receiver with filter

1. Product Overview

Plastic housing, indoor optical receiver with WDM, main functions are: with WDM, optical AGC function, with optical power indicator, metal shielding frame for internal RF circuit, power adapter, compact structure, etc., 10GPON wavelength WDM is optional.



2. Features

- 1GHz working frequency.
- Input optical power range -18 ~0 dBm.
- Optical AGC range -15 ~ -5 dBm
- Low noise MMIC amplification.
- Ultra low power consumption.
- Different optical connector types optional.
- Built-in CWDM, optional G/E PON or 10G/E PON.
- Power adapter optional +5V or +12V.

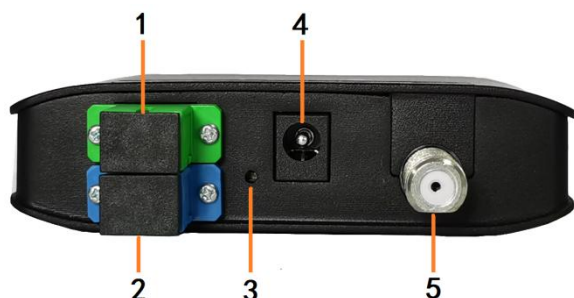
3. Optical Parameters

Item	G/E PON	10 G/E PON
Operating wavelength	1260-1650 nm	1260-1650 nm
CATV wavelength	1540±5 ~1560±5 nm	1540±5 ~1560±5 nm
PON wavelength	1310,1490 nm	1270,1310,1490,1577nm
Insertion loss	<0.7dB	<0.7dB
Isolation Com-Pass	>35dB @1490	>35dB @1490,1577
Isolation Ref-Pass	>35dB @1310	>35dB @1270,1310
Return loss	>45dB	>45dB
ResponsivitymA/mW	>0.85	>0.85
Connector	SC/APC, SC/UPC, LC/APC, LC/UPC	

4. RF Parameters

	Parameter	Unit	Specification	Remark	
	Input optical wavelength	nm	1540±5 ~ 1560±5		
	Input optical power	dBm	-18 ~0		
	AGC range	dBm	-15 ~ -5		
RF	Frequency Range	MHz	45 ~1003		
	Flatness	dB	±0.75	45~1003MHz, @Pin= -13dBm	
			±1.5	45~1003MHz, @Pin=-15~-5dBm	
	Return loss	dB	< -14	45~1003MHz, @Pin= -13dBm	
			< -12	45~1003MHz, @Pin=-15~-5dBm	
	Output level	dBuV	≥80	@Pin=-15~-5dBm, OMI=3.5%	
	C/N	dB	> 44	Pin= -9dBm, 59CH PAL-D, OMI=3.5%	
	C/CTB	dB	> 62		
	C/CSO	dB	> 60		
	MER	dB	≥ 33	Pin=-15dBm, 96CH digital, 256QAM, OMI=3.5%	
BER		1.0E-09 (BEC)			
Others	Power supply	V	DC12V/DC5V ±5%, 0.5A		
	Power supply interface		Inside diameter 2.5mm	@DC5V	Round plug, Outer diameter 5.5mm
			Inside diameter 2.1mm	@DC12V	
	RF interface		Female/Male F port		
	Power consumption	W	≤ 1 (+5V)		
			≤ 2.5 (+12V)		
	ESD	KV	2		
	Operating temperature	℃	-10~+55		
	Operating humidity		95% No condensation		
	Dimensions	mm	95*60*25 (Exclude flange and F port)		
	Optical power indicator	Green : -15~0dBm			
Orange : <-15dBm Or When Pin= 0dBm and the receiving wavelength is out of the range (1540±5~1560±5nm), the optical power indicator turns orange.					
Red : >0dBm					

5. Interface Description



	Description
1	COM port
2	PON port
3	Optical power indication
4	Power adapter input
5	RF output

Note: Please use the factory standard power adapter, it will have damaged risk if using non-standard power adapter.