

# 1550nm CATV Optical Transmitter

This 1550nm optical transmitter is compatible with GPON and EPON networks, supporting various FTTx PON technologies. It can replace 1550nm external modulation optical transmitters in short-distance 1550nm networks.



## ADDITIONAL IMAGES



## Overview

### High-Performance 1550nm CATV Optical Transmitter

This 1550nm optical transmitter is designed for high-stability CATV applications, offering an economical solution for short-distance networks up to 20km. It features advanced SBS suppression and optical spectrum technology to ensure superior signal quality with high CTB and CSO standards. Compatible with GPON, EPON, and various FTTx PON technologies, it is ideal for both general transmission and local channel insertion.

## Optical Performance

### Parameters |

Items <sup>①</sup>	1550	1550	1550	1550-	1550	1550	1550
Output Power (mW) <sup>②</sup>	-02	-04	-06	08	-10	-12	-16
Output (dBm) <sup>②</sup>	±02	±04	±06	±08	±10	±12	±16
Wavelength (nm) <sup>③</sup>	3.0	6.0	7.8	9.0	10.0	11.5	12.0
Fiber Connector <sup>④</sup>	FC/APC, SC/APC						
Max transmission distance <sup>⑤</sup>	20km						
Bandwidth (MHz) <sup>⑥</sup>	47~1000						
OSNR (dB) <sup>⑦</sup>	≥51						
CTB (dB) <sup>⑧</sup>	≥65						
CSO (dB) <sup>⑨</sup>	≥60						
RF IN (dBm) <sup>⑩</sup>	Working as general transmitter					78±5	
	Working as local program insert transmitter					70~110	
Flatness (dB) <sup>⑪</sup>	≤0.75						
Power Consumption (W) <sup>⑫</sup>	≤30						
Power Supply (V) <sup>⑬</sup>	220VAC/48VDC						
Working Temp (°C) <sup>⑭</sup>	-5~55						

Detailed technical specifications including output power options and performance metrics.

Operating Wavelength	1528~1570 nm
Output Power Range	2mW to 16mW (3.0 to 12.0 dBm)
Laser Source	High-performance DFB laser
Fiber Connector Options	FC/APC, SC/APC

## Signal Quality

### Signal Performance Metrics

**51 dB**

CNR

**65 dB**

CTB

**60 dB**

CSO

## RF Specifications

### RF Input Levels

- General Transmitter: 78±5 dBuV
- Local Program Insertion: 70~110 dBuV

Frequency Bandwidth	1000 MHz
---------------------	----------

Flatness	0.75 dB
----------	---------

## Control & Management

### Control Modes

AGC • MGC • CMI

### Monitoring & Interfaces

- LCD Parameter Display
- RS232 Communication Port (RJ45)
- RF Test Port
- LED Status Indicators (Laser, RF, Temp, Power)

## Power & Environment

Power Supply Options	220VAC / -48VDC
----------------------	-----------------

Power Consumption	30 W
-------------------	------

Operating Temperature	-5 to 55°C
-----------------------	------------

## Compliance

Product Certifications	CE
------------------------	----