# CATV

## WS-FTTH-OR20 Series Optical Receiver



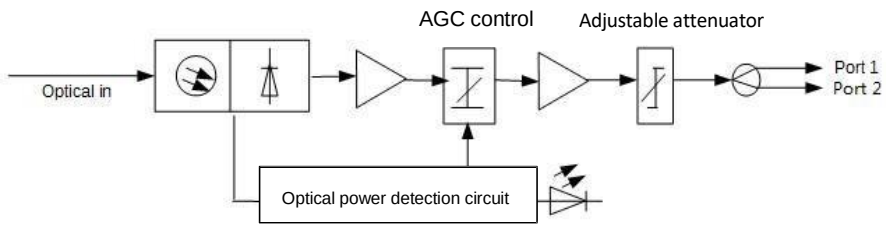
### Performance characteristics

- High-quality aluminum profile shell with good heat dissipation.
- RF channel full GaAs low noise amplifier circuit. The digital signal satisfies -18dBm reception and the analog signal satisfies -10dBm reception.
- With light input AGC function (AGC range can be customized);
- Low-power design, high-efficiency switching power supply ensures high reliability and high stability of the power supply. The overall power consumption is less than 1W, with a light detection circuit.
- Can be built-in WDM, single-fiber home (1490/1310/1550nm) triple-network convergence applications.
- Built-in optical isolator, input to achieve 1490/1310nm isolation.
- Multi-stage lightning protection devices (TVS TVS diodes) and lightning protection systems ensure the safe operation of the equipment.
- The output gain is manually adjustable (0~18dB) and the output level is > 80dBuV.
- SC/APC or FC/APC or custom optical connectors, male or female RF interfaces.
- Output power supply can be achieved.
- Single or dual output can be achieved.

## Applications

The WS-FTTH-OR20 optical receiver is a home optical receiver with optical fiber access as its ultimate goal. It is suitable for FTTH (fibre to the home) network fiber subscriber access terminals, enabling analog or digital signals to enter the home. The machine uses low-power photodetectors, GaAs and optical AGC technology to meet the fiber-to-the-home CATV reception needs. This device can increase WDM and achieve triple play.

## Principle diagram



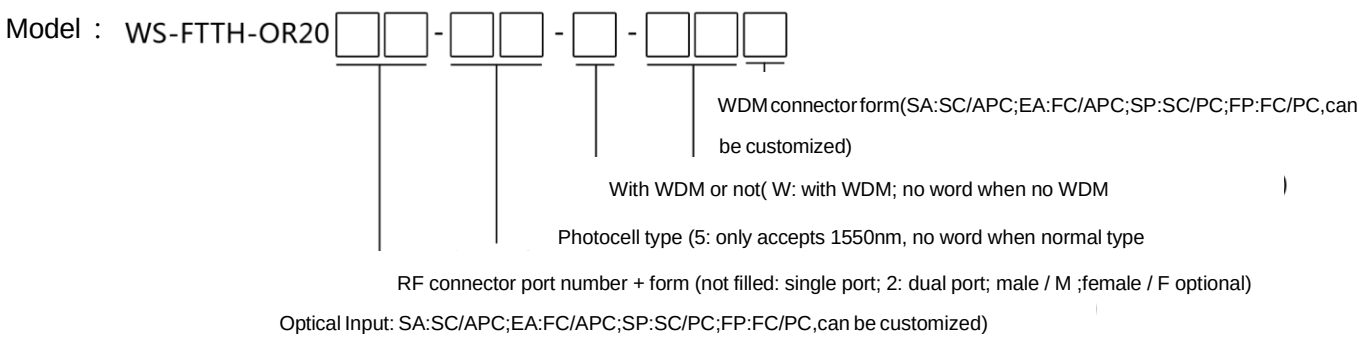

## Technical indicators

| Product number | OR20 |
|---|---|
| Received wavelength | 1200~1600nm&1550nm |
| Input optical power | 0dBm~-10dBm(Analog)&0dBm~-18dBm(digital) |
| optical reflection loss | > 45 dB |
| Optical connector form | FC/APC&SC/APC&FC/PC&SC/PC |
| Frequency Range | 45~1006MHz |
| In-band flatness | ±1dB@45~1006MHz |
| RF output reflection | ≥16dB@ 47~550MH ; ≥14dB@1006MHz |
| Gain adjustment range | 0-18dB |
| Output level | (78~80) dBuV(AGC:@-9~+0dBm，Pin=0dBm) |
| Output port number | 1 or 2 |
| RF output impedance | 75Ω |
| AGC range | 0dBm~-9dBm |
| Carrier to Noise Ratio (Note 1) | ≥51dB |
| CTB (Note 1) | ≥65dB |
| CSO(Note 1) | ≥62dB |
| Host voltage | DC5V |
| Adapter voltage | AC90V ~145V&AC145V ~ 265V or customized |

| | |
|---|---|
| Operating temperature | -20℃ ~+55℃ |
| Power consumption | < 1W |
| Product net size | 129×79×26mm |
| 10 pack sizes | 313×245×83mm |
| FCL packaging size (100) | 500×440×345mm |
| Product net weight | 0.17kg |

Note 1: Test conditions: 59 PAL-D analog television channel signals are deployed in the 550 MHz frequency range, and digital modulation signals are transmitted in the frequency range of 550 MHz to 862 MHz under the specified link loss conditions ( The 8MHz bandwidth is 10dB lower than the carrier level of the analog signal, and the optical receiver input optical power is 0dBm, measuring C/N, CTB, and CSO.

## ■ Ordering guide




Model Example: WS-FTTH-OR20SA-2M-5-WSA

Explanation of the example: This is a WSEE standard FTTH, equipment type is OR20, input optical connector is SC/APC, RF output is 2 ports, connector is male, photoelectric tube only receives 1550nm with WDM, WDM connector type is SC /APC.