

1650nm FBG Reflector LC/APC

The fiber brag grating reflector(FBG Reflector) is a low-cost specific band reflector mounted on the optical network unit (ONU) side. It can reflect light pulses (1650 +/- 5 nm) from the OTDR on the fiber line terminal (OLT) side nearly 100%, while the working bands of the passive optical network (PON) are transmitted normally. The OTDR can determine whether the fiber line is normal by detecting the signal reflected by the fiber grating reflector. When the reflected signal is lower than the normal value, the line loss is too large; when the reflection value is 0, the optical fiber line is broken。 Therefore, we can maintain the fiber line in time by the real-time monitoring of the fiber line.

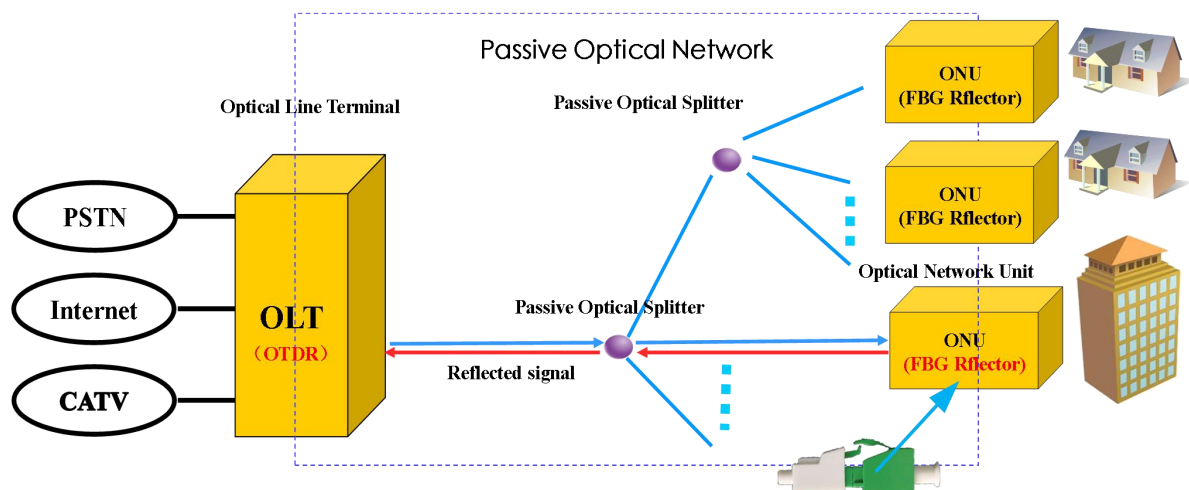
Characteristics

- ◆ High stability and reliability
- ◆ Remote real-time detection
- ◆ Low insertion loss
- ◆ Easy connection for adapter structure
- ◆ Compliant with Telcordia GR-326-CORE, Telcordia GR-1221-CORE
- ◆ Compliant with RoHS



Application

Detection and maintenance of Passive Optical Network lines (applied to FTTx).



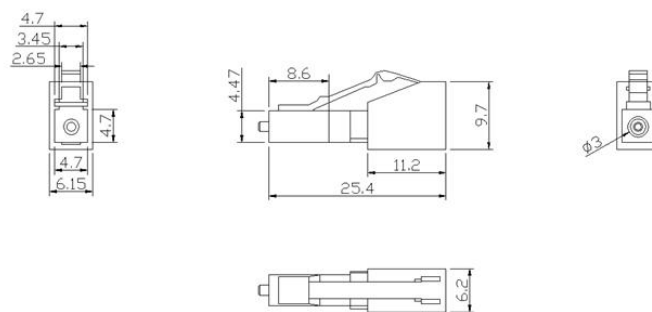
Optical parameter

| item | parameter | | specification | unit | Remarks |
|------|------------------|--------------|---------------|------|---------|
| 1 | wavelength range | Pass band | 1260~1625 | nm | - |
| | | Reflect band | 1644.5~1655.5 | nm | - |

| | | | | | |
|---|----------------------------|-----|--------|-------|----------------|
| 2 | Pass band | IL | ≤1.4 | dB | @1260~1360 |
| | | | ≤1.4 | dB | @1460~1600 |
| | | | ≤3.4 | dB | @1600~1625 |
| | | ORL | >35 | dB | @1260~1580 |
| | | | >30 | dB | @1580~1620 |
| | | | >20 | dB | @1620~1625 |
| 3 | Reflect band | IL | >21 | dB | @1644.5~1655.5 |
| | | ORL | ≤1.0 | dB | @1644.5~1655.5 |
| 4 | PDL | | ≤0.4 | dB | @1260~1600 |
| 5 | Ripple | | ≤0.6 | dB | @1644.5~1655.5 |
| 6 | TDL | | ≤0.5 | dB | @1260~1600 |
| 7 | Max Optical Power Handling | | 27 | dBm | - |
| 8 | Plug Times | | >500 | Times | - |
| 9 | Connector | | LC/APC | - | - |

Structure

The FBG reflector adopts a standard LC connector structure, and its external dimensions are as follows:



Working/storage conditions

| parameter | specification | unit |
|---------------------|---------------|------|
| Working temperature | -25 ~ +65 | °C |
| Working humidity | 5~95 | %RH |
| Storage temperature | -40 ~ +85 | °C |
| Storage humidity | 5~95 | %RH |