1650nm FBG Reflector SC/APC
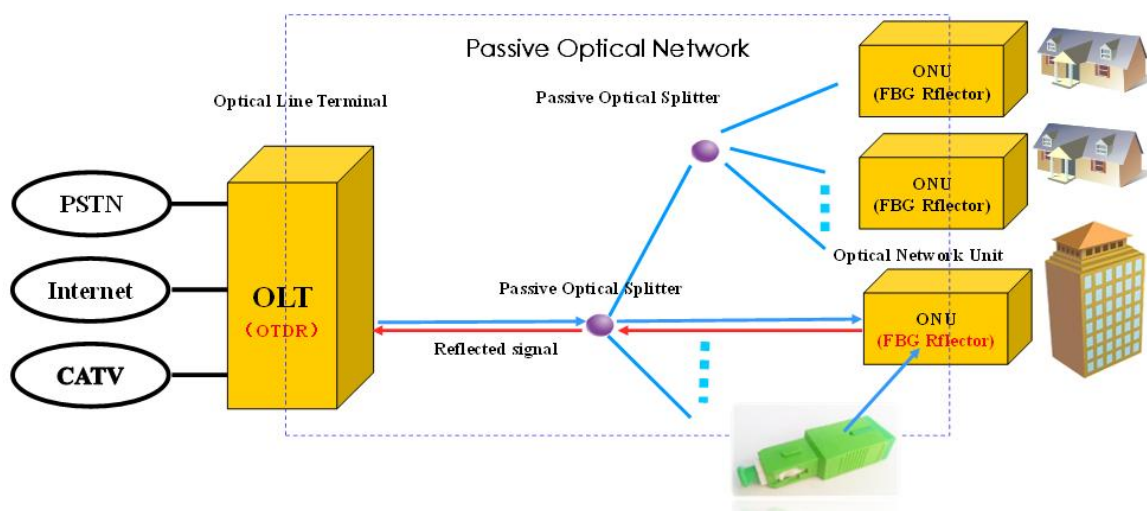
The fiber brag grating reflector(FBG Reflector) is a low-cost specific band reflector mounted on the optical network unit (ONU) side. It can reflect light pulses (1650 +/- 5 nm) from the OTDR on the fiber line terminal (OLT) side nearly 100%, while the working bands of the passive optical network (PON) 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).
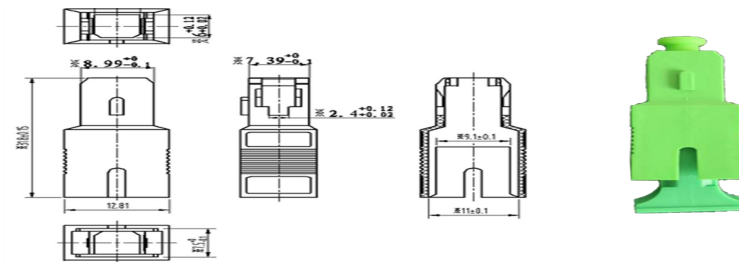

Optical parameter

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		SC/APC	-	-

Structure

The FBG reflector adopts a standard SC 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