FBG (Fiber Bragg Grating) Reflector

Real Time End-to-End (OLT to ONT) Monitoring of Optical Layer in FTTx Networks

Pigtail Typed FBG Reflector

FBG Reflector (1650 nm)

Features

- Low insertion loss
- High reflectivity
- High stability and reliability
- Remote real-time detection
- Easy Installation
- Compatible with GPON, EPON, GEPON
- Compliant with Telcordia GR-326-CORE, Telcordia GR-1221-CORE & RoHS

Product Description

FBG reflectors are used for real time end-to-end (OLT to ONT) monitoring of live FTTX and other networks. A FBG reflector located at the Optical Network Unit (ONU) side of a Passive Optical Network (PON) will reflect a test signal from an OTDR at the Optical Line Terminal (OLT) side, while the traffic signal of the PON system will pass through the reflector. The reflector is used to increase the ability of an OTDR to verify optical continuity at a subscriber location and facilitate troubleshooting.

FBG reflectors are reflective filters integrated in SC adapters and pigtails, which reflect the 1650nm maintenance wavelength and transmit all other telecommunication wavelengths. The Plug In style adapter is available as either a mono-directional or bi-directional high performance 1650nm reflector. The Pigtail type reflector utilizes an angled SC type connector with a ceramic ferrule, and a 1 meter, 0.9mm buffered fiber pigtail.

Applications

PON network

OTDR testing

Central Office Terminal

FTTx

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Parameter		Unit	Remarks	Plug-In		Pigtails
				Monodirectional	Bidirectional	
Optical Characteristics						
Wavelength Range	Pass Band	dB			1260-1625	
	Reflect Band	dB			1645-1655	
Pass Band	Insertion Loss	dB	@1260-1360		≤ 1.4	
		dB	@1460-1600		≤ 1.4	
		dB	@1600-1625		≤ 3.4	
	Return Loss	dB	@1260-1360		>35	
		dB	@1460-1580		>35	
		dB	@1580-1620		>30	
		dB	@1620-1625		>25	
Reflect Band	Insertion Loss	dB	@1645-1655		>21	
	Return Loss	dB	@1645-1655	≤1.0	≤1.4	≤1.0
PDL		dB	@1260-1600		≤0.4	
Ripple (REFLECT Band)		dB	@1645-1655		≤0.6	
TDL (1260 nm - 1600 nm		dB			≤0.5	
Max Optical Power Handling		dBm			27	
Environmental Characteristics						
Working Temperature		°C			-25 °C to +65 °C	
Working Humidity		%RH			5-95	
Storage Temperature		°C			-40 °C to +85 °C	
Storage Humidity		%RH			5-95	

Ordering Information

Description	Comcode	Part Number
Reflector 1650nm, SC/APC Plug-In Adapter, Bi-Directional, Each	301183802	REFLECT,1650,BIDIRECT PLUG-IN SCA
Reflector 1650nm, SC/APC Plug-In Adapter, Bi-Directional, Pack of 10	301183810	REFLECT,1650,BIDIRECT PLUG-IN SCA-10PK
Reflector 1650nm, SC/APC Plug-In Adapter, Uni-Directional, Each	301183786	REFLECT,1650,MONODIRECT PLUG-IN SCA
Reflector 1650nm, SC/APC Plug-In Adapter, Uni-Directional, Pack of 10	301183794	REFLECT,1650,MONODIRECT PLUG-IN SCA-10PK
Reflector 1650nm, SC/APC 0.9mm Pigtail (1m), Uni-Directional, Each	301183760	REFLECT,1650,MONODIRECT PIGTAIL SCA
Reflector 1650nm, SC/APC 0.9mm Pigtail (1m), Uni-Directional, Pack of 10	301183778	REFLECT,1650,MONODIRECT PIGTAIL SCA-10PK

For additional information please contact your sales representative.

You can also visit our website at www.ofsoptics.com or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.

FURUKAWA SOLUTIONS

For a full list of our certifications, visit our website.

RoHS Compliant

OFS Marketing Communications
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