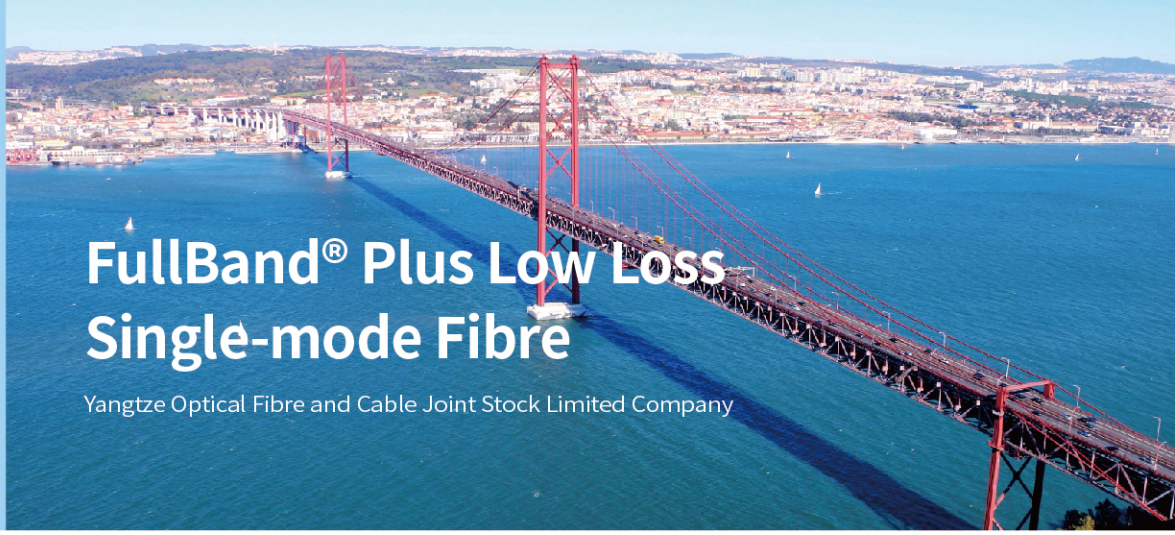
YOFC
Smart Link Better Life.



FullBand® Plus Low Loss Single-mode Fibre

Yangtze Optical Fibre and Cable Joint Stock Limited Company

YOFC FullBand® Plus Low Loss Single-mode Fibre is designed specially for optical transmission systems*which operates over the entire wavelength window from 1260 nm to 1625 nm. By suppressing the water peak that occurs near 1383 nm in conventional Single-mode fibre due to hydroxyl (OH^-) ions absorption, FullBand® Plus Fibre is able to open E-band (1360 -1460nm) for operation, and consequently provides 100 nm more usable wavelengths. FullBand® Plus Fibre is effectively optimized for much lower attenuation level across the entire wavelength window from 1260 nm up to 1625 nm.

Applications

Thanks to its broad usable optical spectrum and outstanding attenuation performance, FullBand®Plus Low Loss Single-mode Fibre is the optimum choice that supports various applications such as Ethernet, Internet Protocol (IP), Asychronous Transfer Mode (ATM), Synchronous Distribution Network (SDH) and Wavelength Division Multiplexing (WDM). FullBand® Plus Low Loss Singlemode Fibre provides wider bandwidth and much lower signal attenuation for backbone, metropolitan area and access networks.

Norms

YOFC FullBand® Plus fibre complies with or even exceeds the ITU-T Recommendation G.652.D and the IEC 60793-2-50 type B1.3 Optical Fibre Specification.
YOFC tightens many parameters of fibre products.

Characteristics

- Designed for operation over the full optical spectrum from 1260-1625 nm, and hence the transmission capacity is increased
- Much lower attenuation over the full optical spectrum from 1260nm to 1625 nm, which meet the demand of extended long distance transmission
- Outstanding optical performance supporting high-speed transmission technologies such as DWDM and CWDM
- Being compatible with existing 1310 nm equipment
- Good protection and excellent strip force stability
- Accurate geometrical parameters that insure low splicing loss and high splicing efficiency

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Characteristics		Conditions	Specified values	Units
Optical Characteristics				
Attenuation		1310nm	≤0.32	[dB/km]
		1383nm(after H_2-aging)	≤0.31	[dB/km]
		1550nm	≤0.18	[dB/km]
		1625nm	≤0.20	[dB/km]
Attenuation vs. Wavelength Max. α difference		1285-1330nm, in reference to 1310nm	≤0.03	[dB/km]
		1525-1575nm, in reference to 1550nm	≤0.02	[dB/km]
Dispersion Coefficient		1285-1340nm	-3.5 to 3.5	[ps/(nm·km)]
		1550nm	≤18	[ps/(nm·km)]
		1625nm	≤22	[ps/(nm·km)]
Zero Dispersion Wavelength (λ_0)		--	1300- 1324	[nm]
Zero Dispersion Slope (S_0)		--	≤0.092	[ps/(nm²·km)]
Typical Value		--	0.086	[ps/(nm²·km)]
PMD	Maximum Individual Fibre	--	≤0.1	[ps/$\sqrt{km}$]
	Link Design Value (M=20, Q=0.01%)	--	≤0.06	[ps/$\sqrt{km}$]
	Typical Value	--	0.04	[ps/$\sqrt{km}$]
Cable Cutoff Wavelength (λ_{cc})		--	≤1260	[nm]
Mode Field Diameter (MFD)		1310nm	8.7- 9.5	[μm]
		1550nm	9.8- 10.8	[μm]
Effective Group Index of Refraction (N_{eff})		1310nm	1.466	--
		1550nm	1.467	--
Point Discontinuities		1310nm	≤0.05	[dB]
		1550nm	≤0.05	[dB]
Geometrical Characteristics				
Cladding Diameter		--	125.0±0.7	[μm]
Cladding Non-Circularity		--	≤1.0	[%]
Coating Diameter		--	235- 245	[μm]
Coating-Cladding Concentricity Error		--	≤12.0	[μm]
Coating Non-Circularity		--	≤6.0	[%]
Core-Cladding Concentricity Error		--	≤0.6	[μm]
Curl(radius)		--	≥4	[m]
Delivery Length		--	Up to 50.4	[km/reel]
Environmental Characteristics		**1310nm, 1550nm & 1625nm**		
Temperature Dependence Induced Attenuation		-60°C to +85°C	≤0.05	[dB/km]
Temperature-Humidity Cycling Induced Attenuation		-10°C to +85°C, 98% RH	≤0.05	[dB/km]
Watersoak Dependence Induced Attenuation		23°C, for 30 days	≤0.05	[dB/km]
Damp Heat Dependence Induced Attenuation		85°C and 85% RH, for 30 days	≤0.05	[dB/km]
Dry Heat Aging		85°C, for 30 days	≤0.05	[dB/km]
Mechanical Specifications				
Proof Test		--	≥9.0	[N]
		--	≥1.0	[%]
		--	≥100	[kpsi]
Macro-bend Induced Loss	100 Turns Around a Mandrel of 30 mm Radius	1625nm	≤0.05	[dB]
	100 Turns Around a Mandrel of 25 mm Radius	1310nm and 1550nm	≤0.05	[dB]
	1 Turn Around a Mandrel of 16 mm Radius	1550nm	≤0.05	[dB]
Coating Strip Force		typical average force	1.5	[N]
		peak force	1.3- 8.9	[N]
Dynamic Fatigue Parameter (n_d)		--	≥20	--