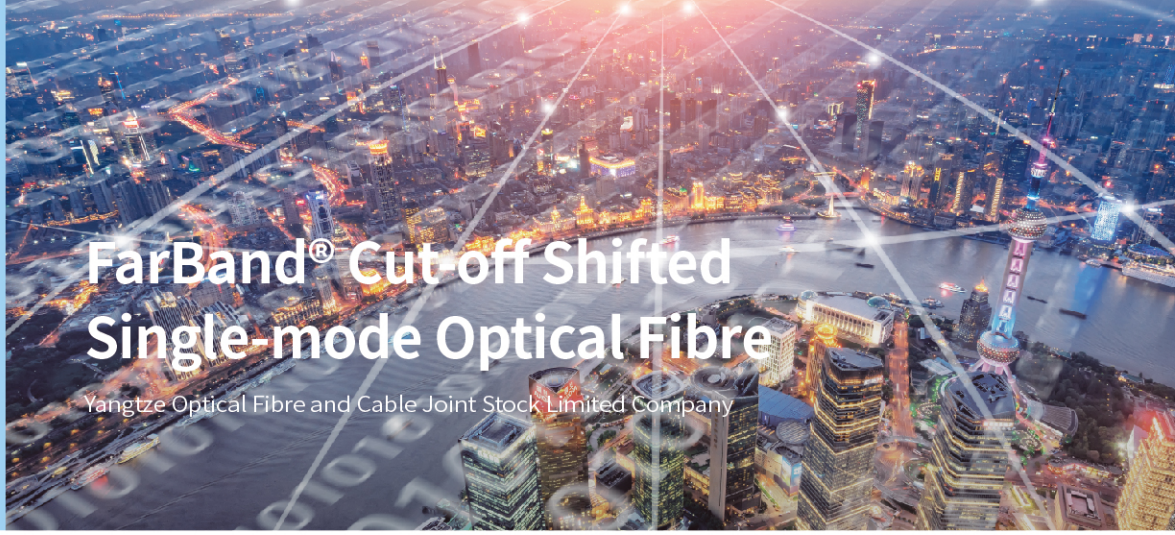
YOFC
Smart Link Better Life.



FarBand® Cut-off Shifted Single-mode Optical Fibre

Yangtze Optical Fibre and Cable Joint Stock Limited Company

YOFC FarBand® fibre is designed specially for long-haul optical transmission systems. It makes performance optimization in both C band (1530-1565nm) and L band (1565-1625nm). Its enlarged effective area suppresses nonlinear effect in the process and increases nonlinear tolerance for transmission system. Meanwhile FarBand® fibre reduces attenuation in both C band and L band. The fibre fully meets the demands for transmitting signal with high speed, high capacity and extended networking distances over one single fibre.

Applications

Attributed to its large effective area and lower attenuation performance, FarBand® fibre is the optimum choice that supports various applications such as Ethernet, Internet Protocol (IP), Synchronous Optical Network (SONET) and Wavelength Division Multiplexing (WDM). FarBand® fibre enables high input power and minishes transmitted power distribution density because of its enlarged effective area, suppressing nonlinear effect, such as Brillouin scattering, self-phase modulation and cross phase modulation, thus it satisfys multi-channel DWDM system. Meanwhile FarBand® fibre provides low signal attenuation, which satisfys the optical fibre attenution requirement in long haul transmission, and provides more system redundancy.

Norms

FarBand® fibre complies with or even exceeds the ITU-T G.654.B/E recommendation and IEC 60793-2-50 B1.2 Optical Fibre Specification. YOFC tightens many parameters of fibre products.

Characteristics

- Designed for 40G/100G/ 100G beyond large capacity, long-haul Dense Wavelength Division Multiplexing (DWDM) system operation over C band (1530-1565nm) and L band (1565-1625nm)
- Large effective area reduces nonlinear effect in the transmission process, ensuring good system performance
- Lower attenuation level, which meets the demand of extended long distance transmission
- Lower bending induced loss at 1550nm and more sensitive 1625nm window.

/ Tel: 400-006-6869
/ E-mail: 400@yofc.com
/ Web: en.yofc.com

Characteristics		Conditions	Specified values	Units
Optical Characteristics				
Nominal Effective Area		1550nm	125	[μm²]
Mode Field Diameter		1550nm	12.0 - 13.0	[μm]
Attenuation		1550nm	⩽0.19	[dB/km]
		1625nm	⩽0.21	[dB/km]
Attenuation vs. Wavelength Max. α difference		1525-1575nm, in reference to 1550nm	⩽0.02	[dB/km]
		1550-1625nm, in reference to 1550nm	⩽0.03	[dB/km]
Dispersion Coefficient		1550nm	⩽23	[ps/(nm·km)]
		1625nm	⩽27	[ps/(nm·km)]
Dispersion Slope		1550nm	0.050- 0.070	[ps/(nm²·km)]
PMD	Maximum Individual Fibre	--	⩽0.1	[ps/$\sqrt{km}$]
	Link Design Value (M=20, Q=0.01%)	--	⩽0.04	[ps/$\sqrt{km}$]
	Typical Value	--	0.03	[ps/$\sqrt{km}$]
Cable Cutoff Wavelength (λ_{cc})		--	⩽1520	[nm]
Effective Group Index of Refraction		1550nm	1.465	--
Point Discontinuities		1550nm	⩽0.05	[dB]
Geometrical Characteristics				
Cladding Diameter		--	125.0±1.0	[μm]
Cladding Non-Circularity		--	⩽1.0	[%]
Coating Diameter		--	235 - 255	[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[1]		--	Up to 25.2	[km/reel]
Environmental Characteristics		**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 , 85% RH, 30 days	⩽0.05	[dB/km]
Dry Heat Aging		85°C, for 30 days	⩽0.05	[dB/km]
Mechanical Specifications				
Proof Test[2]		--	⩾9.0	[N]
		--	⩾1.0	[%]
		--	⩾100	[kpsi]
Macro-bend Induced Loss	100 Turns Around a Mandrel of 30 mm Radius	1550nm	⩽0.10	[dB]
		1625nm	⩽0.10	[dB]
Coating Strip Force		typical average force	1.5	[N]
		peak force	1.3 -8.9	[N]
Dynamic Fatigue Parameter (n_d)		--	⩾20	--

Remark: 1.Other delivery lengths are available. 2.Higher proof test level is available.