Smart Link Better Life.

MaxBand® WideBand OM5 Bend Insensitive Multimode Fibre

Yangtze Optical Fibre and Cable Joint Stock Limited Company

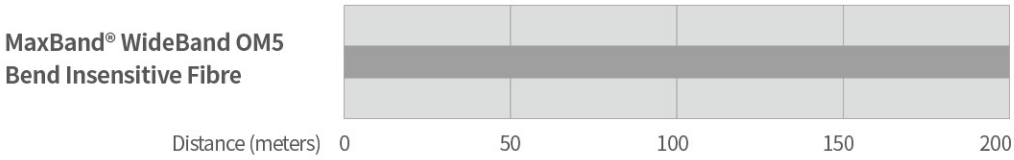
YOFC MaxBand® WideBand OM5 Bend Insensitive Multimode Fibre is a 50µm laser-optimized multimode fibre designed for short wavelength division multiplexing (SWDM) applications. Unlike legacy OM4 multimode fibre with high bandwidth at 850nm, YOFC MaxBand® OM5 Bend Insensitive Multimode Fibre has high bandwidth in the 850-950nm window and maintaining backward compatiblity with legacy OM4 fibre. WideBand OM5 and multi-wavelength transceivers are a viable solution for 100Gb/s and 400Gb/s multi-wavelength systems.

YOFC MaxBand® WideBand OM5 Bend Insensitive Multimode Fibre complies with or exceeds ISO/IEC 11801-4 OM5 specification, IEC 60793-2-10 A1-OM5 specification, and TIA-492AAAF A1-OM5 specification.

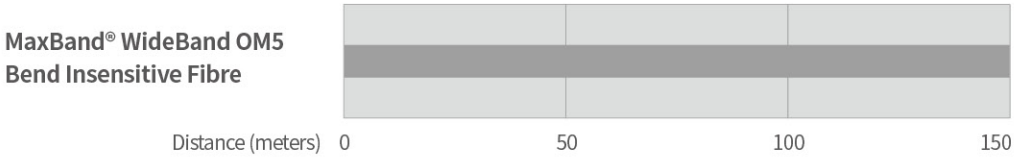
Features	Benefits and Applications
• Designed for multi-wavelength systems • High bandwidth in the wavelength range of 850-950nm • Backward compatiblity with legacy OM4 fibre	• Support single-wavelength and multi-wavelength transmission system from 40Gb/s to 400Gb/s
• Superior geometry uniformity • Low attenuation • High bandwidth • Low differential mode delay (DMD)	• Data centers • Office centers • Data storage networks • Local area networks (LAN) • High-performance computing centers a
• Very low macro-bending sensitivity	• Supports the use and installation of optical cables with a small bending radius
• Coated with YOFC's proprietary dual layer UV curable acrylate	• High resistance to micro-bending • Optimized performance in tight-buffer cable applications • Stable performance over a wide range of environmental conditions

System Link Length

40 & 100 Gb/s Link Length @850nm



100Gb/s Link Length Based on WDM



Website: www.yofc.com

Characteristics	Conditions	Specified values		Units
Geometry Characteristics				
Core Diameter	--	50±2.5		[μm]
Core Non-Circularity	--	≤5.0		[%]
Cladding Diameter	--	125.0±1.0		[μm]
Cladding Non-Circularity	--	≤0.6		[%]
Coating Diameter	--	245±7		[μm]
Coating/Cladding Concentricity Error	--	≤10.0		[μm]
Coating Non-Circularity	--	≤6.0		[%]
Core/Cladding Concentricity Error	--	≤1.0		[μm]
Delivery Length	--	up to 8.8		[km/reel]
Optical Characteristics				
Attenuation	850nm	≤2.4		[dB/km]
	953nm	≤1.7		[dB/km]
	1300nm	≤0.6		[dB/km]
Overfilled Modal Bandwidth	850nm	≥3500		[MHz·km]
	953nm	≥1850		[MHz·km]
	1300nm	≥500		[MHz·km]
Effective Modal Bandwidth	850nm	≥4700		[MHz·km]
	953nm	≥2470		[MHz·km]
Application support distance on	--	--		--
100Gb/s WDM[1]	--	150		[m]
40Gb/s WDM[1]	--	440		[m]
40GBASE-SR4 / 100GBASE-SR10[2]	850nm	200		[m]
Numerical Aperture	--	0.200±0.015		--
Group Refractive Index	850nm	1.482		--
	1300nm	1.477		--
Zero Dispersion Wavelength, λ_0	--	1297-1328		[nm]
Zero Dispersion Slope, S_0	--	≤4 (-103) / (840 (λ_0/840)^4)		[ps/(nm^2·km)]
Macrobending Loss[3]	--	@850nm	@1300nm	--
2 Turns @ 15 mm Radius	--	≤0.1	≤0.3	[dB]
2 Turns @ 7.5 mm Radius	--	≤0.2	≤0.5	[dB]
Backscatter Characteristics	**850nm & 1300nm**			
Step (Mean of Bidirectional Measurement)	--	≤0.10		[dB]
Irregularities Over Fibre Length and Point Discontinuity	--	≤0.10		[dB]
Attenuation Uniformity	--	≤0.08		[dB/km]
Environmental Characteristics	**850nm & 1300nm**			
Temperature Cycling	at -60°C to 85°C	≤0.10		[dB/km]
Temperature-Humidity Cycling	at -10°C to 85°C and 4% to 98% RH	≤0.10		[dB/km]
Water Immersion	at 23°C for 30 days	≤0.10		[dB/km]
Dry Heat	at 85°C for 30 days	≤0.10		[dB/km]
Damp Heat	at 85°C and 85% RH for 30 days	≤0.10		[dB/km]
Mechanical Specification				
Proof Test	--	≥9.0		[N]
	--	≥1.0		[%]
	--	≥100		[kpsi]
Coating Strip Force	typical average force	1.5		[N]
	peak force	≥1.3, ≤8.9		[N]
Dynamic Stress Corrosion Susceptibility Parameter (n_d, typical)	--	20		--

Remarks:1. Support distance with SWDM transceivers http://www.swdm.org/msa/

2. Support distances considering maximum cable attenuation of 3.0 dB/km at 850 nm, maximum total splice/connector loss of 1.0 dB and VCSELs maximum RMS spectral width ≤ 0.45 nm

3. The launch condition for the macrobending loss measurement fulfils that described in IEC 61280-4-1.