

MaxBand® OM4 Ultra Bending Insensitive Multimode Fibre

Yangtze Optical Fibre and Cable Joint Stock Limited Company

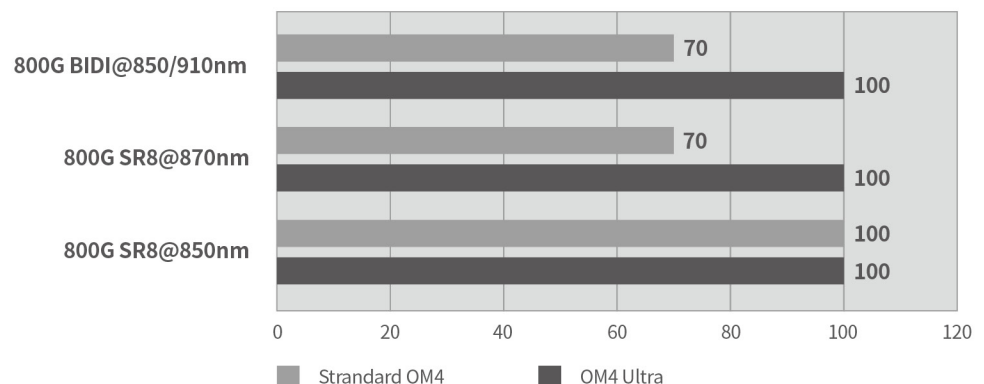
YOFC MaxBand® OM4 Ultra Bending Insensitive Multimode Fibres are designed for 100G/Lane and Terabit BiDi technology, offering high bandwidth in the wavelength range of 850 nm - 870 nm & 910nm. It can compensate the center wavelength shift of 100G/Lane transceivers, ensuring smooth upgrades to 400G, 800G, and higher data rates for data center. It is fully backward compatible with legacy OM4 and OM5 fibres. Compared to OM5, it is more cost-effective and can maintain significant cost and power advantages in high-speed links.

YOFC MaxBand® OM4 Ultra Bending Insensitive Multimode Fibres comply with or exceed ISO IEC 11801-1 OM4 specifications, IEC 60793-2-10 A1-OM4 specifications, and TIA-492AAAF A1-OM4 specifications.

Features	Benefits and Applications
<ul style="list-style-type: none"> Optimized for 100G/Lane transmission system High effective mode bandwidth in wavelength range of 850-870nm & 910nm Backward compatibility with legacy OM4 fibre 	<ul style="list-style-type: none"> Support single-wavelength and double-wavelength transmission system form 400Gb/s to 1.6Tb/s
<ul style="list-style-type: none"> Superior geometry uniformity Low attenuation High bandwidth Low differential mode delay (DMD) 	<ul style="list-style-type: none"> Data centers Office centers Data storage networks Local area networks High-performance computing centers 1 & 10 & 40 & 100 & 400 Gb/s Ethernet
<ul style="list-style-type: none"> Very low macro-bending sensitivity 	<ul style="list-style-type: none"> Supports the use and installation of optical cables with a small bending radius
<ul style="list-style-type: none"> Coated with YOFC's proprietary dual layer UV curable acrylate 	<ul style="list-style-type: none"> High resistance to micro-bending Optimized performance in tight-buffer cable applications Stable performance over a wide range of environmental conditions

System Link Length

YOFC MaxBand® OM4 Ultra Bending Insensitive Multimode Fibres can support transmission distances of 100m in 100G/Lane and Terabit BiDi links which comply with or exceed IEEE 802.3db specification and Terabit BiDi MSA specification.



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]
	910nm	≤2.0	[dB/km]
	1300nm	≤0.6	[dB/km]
Overfilled Modal Bandwidth	850nm	≥3500	[MHz·km]
	1300nm	≥500	[MHz·km]
Effective Modal Bandwidth	850nm-870nm	≥4700	[MHz·km]
	910nm	≥3100	[MHz·km]
Link Length	800GBase-SR8 / 800GBaseSR-4.2	100	[m]
Numerical Aperture	--	0.200±0.015	--
Group Refractive Index	850nm	1.482	--
	1300nm	1.477	--
Zero Dispersion Wavelength, λ_0	--	1295-1340	[nm]
Zero Dispersion Slope, S_0	1295nm≤ λ_0 ≤1310nm	≤0.105	[ps/(nm ² ·km)]
	1310nm≤ λ_0 ≤1340nm	≤0.000375 (1590- λ_0)	[ps/(nm ² ·km)]
Macrobending Loss ²	--	--	--
2 Turns @ 15 mm Radius	850nm	≤0.1	[dB]
	1300nm	≤0.3	[dB]
2 Turns @ 7.5 mm Radius	850nm	≤0.2	[dB]
	1300nm	≤0.5	[dB]
Backscatter Characteristics		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	-60°C to 85°C	≤0.10	[dB/km]
Temperature-Humidity Cycling	-10°C to 85°C, 4% to 98% RH	≤0.10	[dB/km]
Water Immersion	23°C, 30 days	≤0.10	[dB/km]
Dry Heat	85°C, 30 days	≤0.10	[dB/km]
Damp Heat	85°C, 85% RH, 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_p , typical)	--	20	--

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