

MaxBand® OM4 Ultra Bending Insensitive Multimode Fibre

Yangtze Optical Fibre and Cable Joint Stock Limited Company

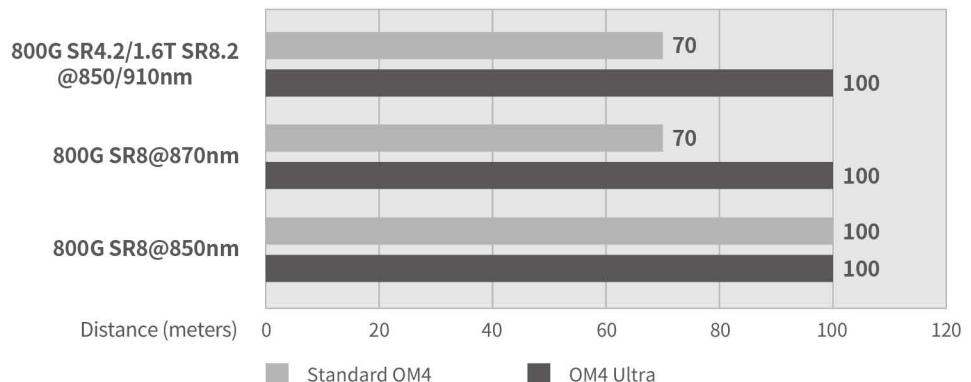
YOFC MaxBand® OM4 Ultra Bending Insensitive Multimode Fibre is designed for 100G/lane and Terabit BiDi technology, offering high bandwidth in the wavelength range of 850nm - 870nm & 910nm. It can compensate the signal degradation caused by the center wavelength shift of 100G/lane transceivers, ensuring smooth upgrades to 400G, 800G, and higher data rates for data centers. It is fully backward compatible with legacy OM4 and OM5 fibres.

YOFC MaxBand® OM4 Ultra Bending Insensitive Multimode Fibre complies with or exceeds ISO/IEC 11801-1 OM4 specification, IEC 60793-2-10 A1-OM4 specification, and TIA-492AAAF A1-OM4 specification.

Features	Benefits and Applications
<ul style="list-style-type: none"> Optimized for 100G/lane transmission system High effective modal bandwidth in wavelength range of 850~870nm & 910nm Backward compatibility with legacy OM4 fibre 	<ul style="list-style-type: none"> Compensate for signal degradation caused by center wavelength shift of high speed optical transceiver Support single-wavelength and double-wavelength transmission system from 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 Data storage networks High-performance computing centers 10&40&100&400&800 Gb/s and 1.6Tb/s Ethernet Office centers Local area networks
<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 Fibre can support transmission distances of 100m in 100G/lane and Terabit BiDi links which complies with or exceeds 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 17.6	[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	100	[m]
	800GBaseSR4.2	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 ¹	--	--	--
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.