

Optical characteristics of MaxCap Safe Bend Insensitive OM3/OM4/OM5 10G Multimode fiber



		MaxCap Safe 300 50/125 μ m (BI-OM3)	MaxCap Safe 550 50/125 μ m (BI-OM4)	MaxCap Safe 550WB 50/125 μ m (BI-OM5)
Attenuation	@850nm	≤ 2.6dB/km	≤ 2.6dB/km	≤ 2.6dB/km
	@953nm			≤ 1.7dB/km
	@1300nm	≤ 0.8dB/km	≤ 0.8dB/km	≤ 0.8dB/km
Over filled Launch Bandwidth	@850nm	≥ 1500MHz-km	≥ 3500MHz-km	≥ 3500MHz-km
	@953nm			≥ 1850MHz-km
	@1300nm	≥ 500MHz-km	≥ 500MHz-km	≥ 500MHz-km
Effectective Modal Bandwidth	@850nm	≥ 2000MHz-km	≥ 4700MHz-km	≥ 4700MHz-km
	@953nm			≥ 2470MHz-km
transmission distance 40G&100G Ethernet (850nm)		≤ 100m	≤ 150m	≤ 200m
transmission distance 10GBASE-SR(850nm)		≤ 300m	≤ 550m	≤ 600m
Differential Mode Delay(DMD) @850nm		Any one of the following template		
		DMD	inner	outer
		Templates	0~18μm radius	0~23μm radius
		1	≤ 0.33ps/m	≤ 0.33ps/m
		2	≤ 0.27ps/m	≤ 0.27ps/m
		3	≤ 0.26ps/m	≤ 0.26ps/m
		4	≤ 0.25ps/m	≤ 0.25ps/m
		5	≤ 0.24ps/m	≤ 0.24ps/m
		6	≤ 0.23ps/m	≤ 0.23ps/m
Numerical Aperture		0.200±0.015NA		
Group Index of Refraction	@850nm	1.482		
	@1300nm	1.477		
Zero dispersion wavelength		1295~1320nm	1295~1320nm	1297~1328nm
Zero dispersion slope	ps/(nm ² - km)	≤ 0.001(λ _o -1990)	≤ 0.001(λ _o -1990)	≤ 4(-103)/(840(1-(λ _o /840) ⁴))

Backscatter Characteristics(@1300nm)

Step(Mean of bidirectional measurement)	≤ 0.10dB
Irregularities over fiber length and point discontinuity	≤ 0.10dB

Geometrical Characteristics

Core diameter	50±2.5μm
Core noncircularity	≤ 5%
Cladding diameter	124.8±1.0μm
Cladding noncircularity	≤ 1%
Core/Cladding concentricity error	≤ 1.0μm

Environmental Characteristics (@850nm/@1300nm)

Attenuation at temperature cycling Δα (-60℃~+85℃)	≤ 0.10dB/km
Attenuation at temperature-humidity cycling (-10℃~ + 85℃ . 90% R.H.)	≤ 0.10dB/km
Attenuation at damp heat dependence (85℃ .85% R.H. . 30days)	≤ 0.10dB/km
Attenuation at watersoak dependence (20℃ . 30 days)	≤ 0.10dB/km

Mechanical Characteristics

Proof test (off line)		≥ 9.0N (≥ 100kpsi)
Attenuation at bending dependence (2turns,15mm diameter,7.5mm radius)	@850nm	≤ 0.2dB
	@1300nm	≤ 0.5dB
Coating strip force(Typical)		1.5N
Dyanamics stress corrosion susceptibility parameter(n _g , Typical)		≥ 27