Multimode 50/125 OM3

To support high performance, low-cost, short reach 10 Gb/s applications, developed a 850 nm laser-optimized 50 µm multimode fiber: Max Band -OM3 multimode fiber, formerly known as MaxBand300. These applications are in particular Local Area Networks (LAN) backbones up to 300 m (10GBASE-SX), Storage Area Networks (SAN), Date Centers up to 100 m at 40G/100G speeds (40GBASE-SR4 and 100GBASE-SR10) and Central Office connections. The Max Band multimode fibers are produced by the proprietary Plasma-activated Chemical Vapor Deposition process (PCVD), acknowledged worldwide as offering the best core profile accuracy in multimode fiber.
Thanks to the special bandwidth performance of the MaxBand-OM3 multimode fiber, a broad range of legacy and 10 Gb/s applications can be supported. This range of multimode products offers end-users the best possible optimization of their networks in the most flexible way.
The OM3 multimode fiber complies with or exceeds IEC 60793-2-10 type A1a.2 Optical Fiber Specification, ISO/IEC 11801 OM-3 Specification, TIA/EIA-492AAAC detail Specification.

Optical Characteristics for Multimode 50/125 µm (OM3)

CHARACTERISTIC	CONDITION	SPECIFIC VALUE	UNIT
Optical Characteristics	OM3		
Attenuation	850 nm	≤2.4	[dB/km]
	1300 nm	≤0.6	
Minimum Modal Bandwidth	850 nm	≥1500	[MHz.km]
	1300 nm	≥500	
Effective Modal Bandwidth	850 nm	≥2000	[MHz.km]
Application Support Distance on	1000 BASE-SX (850nm)	1000	[m]
	10G BASE-SR (850nm)	300	
	40&100Gigabit Ethernet (850nm)	100	
Numerical Aperture (NA)		0.200±0.015	
Group Index of Refraction (Typical)	850 nm	1.482	
	1300 nm	1.477	
Zero Dispersion Wavelength, λ_0		1295-1340	[nm]
Zero Dispersion Slope, S_0	1295nm ≤ λ_0 ≤1310nm	≤0.105	[ps/(nm².km)]
	1310nm ≤ λ_0 ≤1340nm	≤0.000375*(1590-λ_0)	
Macro Bending Induced loss 100 Turns @37.5mm Radius	850 nm	≤0.50	[dB]
	1300 nm	≤0.50	
Macro Bending Induced loss 2 Turns @15mm Radius	850 nm	≤1.0	
	1300 nm	≤1.0	
Geometrical Characteristics			
Core Diameter		50±2.5	[µm]
Cladding Diameter		125.0±1.0	[µm]
Core Non-Circularity		≤5.0	[%]
Cladding Non-Circularity		≤1.0	[%]
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]
Environmental Characteristics	850 nm & 1300 nm		
Temperature Dependence (Induced Attenuation)	- 60°C to +85°C	≤0.10	[dB/km]
Temperature Humidity Cycling (Induced Attenuation)	-10°C to +85°C, 98% RH	≤0.10	[dB/km]
Damp Heat Dependence (Induced Attenuation)	85°C and 85% RH, for 30days	≤0.10	[dB/km]
Water Soak Dependence (Induced Attenuation)	23°C, for 30days	≤0.10	[dB/km]
Dry Heat Aging	85°C, for 30days	≤0.10	[dB/km]
Back Scatter Characteristics	1300 nm		
Step (Mean of Bidirectional Measurement)		≤0.10	[dB]
Irregularities Over Fiber Length & Point Discontinuity		≤0.10	[dB]
Attenuation Uniformity		≤0.08	[dB/km]
Mechanical Characteristics			
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)		27	