Cabled Optical Fibres Specifications

LANMARK-OF OM3 GIGALITEFLEX FIBRE: TECHNICAL SPECIFICATION

Aginode Ref: LANmark-FiberOM3

- Fully OM3 standard compliant
- Effective Modal Bandwidth of 2000 Mhz.km
- Supports 10 Gbit-SR till 330 m
- Superior geometric tolerances
- Low attenuation values
- Enhanced Macrobend loss performance
- Tight fibre bend radius: 7.5 mm



STANDARDS

ISO/IEC 11801

High-Performance Graded Index Multimode Fibre with EMB 2000 Mhz.km for 10 Gb/s Ethernet LAN applications over 330 meters

With LANmark-OF OM3 GIGAliteFLEX Aginode Cabling Solutions offers a fully OM3 standard (IEC 60793-2-10 as fibre type A1a.2b) compliant multimode fibre. LANmark-OF OM3 GIGAliteFLEX ensures highest bandwidth performance for Premises, Local Area Network (LAN) and Storage Area Network (SAN) while its low-cost 850 nm lasers (VCSEL) optimised design contributes to overall system cost reduction.

Key performance characteristics

- Guarantees reliable system performance for 10 Gb/s Ethernet serial transmission over 330 m.
- Guaranteed OM3 compliance: Effective Modal Bandwidth (EMB) of 2000 Mhz.km, Overfilled Launch Bandwidth (OFL) of 1500 Mhz.km @ 850 nm and 500 Mhz.km @ 1300 nm.
- Optimised for low cost 850 nm system applications using VCSEL as light sources.
- Effective modal bandwidth values ensured by most stringent DMD characterization.
- Fully compatible with multimode 50/125 µm installed fibre base.

Bend Performance and Compatibility

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Aginode is indicative only and shall not be binding on Aginode or be treated as constituting a representation on the part of Aginode.

Aginode' GIGAliteFLEX bend-insensitive fibres deliver the best macrobending performance in the industry while maintaining compatibility with traditional optical fibres, equipment, practices and procedures. GIGAliteFLEX multimode fibers are designed to withstand tight bends with substantially less signal loss than traditional multimode fibre. This new multimode optical fibre allows very tight bends that are especially useful in very dense patching zones. With greater signal protection when subjected to tight bending, Aginode' GIGAliteFLEX bend-insensitive fibre offers greater system security meaning maximized network up-time.

Standardization and compliances for LANmark-OF OM3

- IEC 60793-1-49: differential mode delay (DMD) to measure effective modal bandwidth (EMB)
- IEC 60793-1-41: overfilled mode launch bandwidth (OFL BW)
- ISO/IEC 11801 (2) as OM3 fibre
- IEC 60793-2-10 as fibre type A1a.2b
- Compliant to annex D2 (DMD template requirements) and annex D3 (EMBc: calculated effective modal bandwidth) of IEC 60793-2-10 ed. 4.

LANmark-OF OM3 - Geometrical Characteristics

Characteristic	Spec Values	Unit
Core Diameter	50 ± 2.5	µm
Core Non-Circularity	≤ 6.0	%
Core/Clad Concentricity	≤ 1.5	µm
Cladding Diameter	125 ± 1.0	µm
Cladding Non-Circularity	≤ 1.0	%
Coating Diameter	250 ± 15.0	µm
Coating/Clad Concentricity Error	≤ 10.0	µm

LANmark-OF OM3 - optical parameters

Characteristics	Spec Values	Unit
Bandwidth (Overfilled Launch) 850 nm	≥ 1500	Mhz.km
Bandwidth (Overfilled Launch) 1300 nm	≥ 500	Mhz.km
Effective Modal Bandwidth (EMB) 850 nm	≥ 2000	Mhz.km
Transmission link lengths for 1 Gb/s (SX/LX)	880/550	m
Transmission link lengths for 10 Gb/s (SR/LX4)	330/300	m
Transmission link lengths for 40 Gb/s (SR4)	100	m
Transmission link lengths for 100 Gb/s (SR10)	100	m
Attenuation 850 nm	3.0	dB/km
Attenuation 1300 nm	1.0	dB/km
Attenuation uniformity	≤ 0.2	dB
Numerical Aperture	0.20 ± 0.02	

LANmark-OF OM3 - Macrobend Loss

Mandrel Radius (mm)	Number of Turns	Induced attenuation (dB) @ 850 nm	Induced attenuation (dB) @ 1300 nm
37.5	100	≤ 0,05	≤ 0,15

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