

Fibre Optic Distribution Cable MM, OM5, Indoor/Outdoor, Tight Buffered, LS0H B2a-s1a,d1,a1

molex

Molex LS0H OM5 50/125µm tight buffered fibre cable can be used for LAN and WAN applications. The cable is suitable for indoor applications on trays and outdoors in ducts and features e-glass strength members and a UV stabilised LS0H Euroclass B2ca-s1a,d1,a1 sheath.

To meet the rapid growth of bandwidth demand, OM5 multimode fibre extends the high-bandwidth operating wavelengths from a narrow band centred at 850 nm, to a 100 nm spectrum from 850 nm to 950 nm. OM5 enhances the capabilities of wavelength division multiplexing technology operating at 40 Gb/s and 100Gb/s over a single pair of fibres and paving the way for 400G using four fibre pairs.



PHYSICAL PROPERTIES IEC 60794-1-21/22

Specifications

REFERENCE INFORMATION

Commercial Standards:

Fiber:

IEC 60793-2-10: type A1a.4

TIA/EIA-492 AAAE

ITU G.651.1

ISO/IEC 11801 category OM5

ANSI/TIA/EIA-568.C

ISO/IEC 24764

Cable:

ISO 11801-1, EN 187 000, IEC 60794-2,

EN 50 173-1, IEC 60794-2-20

RoHS Compliant

Fire Propagation Tests

EU Regulation 305/2011 (CPR)

EN 50575:2014+A:2016

EuroClass: B2ca-s1a,d1,a1

DoP No: MLXCES-2018-F-061

located on web

<https://www.molexces.com/about-us/dop-certificates/>

ELECTRICAL

Cable Attenuation IEC 60793-1-40

Maximum value of cable attenuation at 850 nm:

≤ 3.0 dB/km

Maximum value of cable attenuation at 953 nm:

≤ 2.3 dB/km

Maximum value of cable attenuation at 1300 nm:

≤ 1.0 dB/km

Bare Fiber Attenuation Limit to IEC 60793-1-40,

850 nm: ≤ 2.5 dB/km

953 nm: ≤ 1.8 dB/km

1300 nm: ≤ 0.7 dB/km

Bandwidth IEC 60793-1-41

Overfilled (OFL) modal bandwidth at 850 nm:

≥ 3500 MHz/km

Overfilled (OFL) modal bandwidth at 953 nm:

≥ 1850 MHz/km

Overfilled (OFL) modal bandwidth at 1300 nm:

≥ 500 MHz/km

Group index of refraction IEC 60793-1-22

Group index of refraction at 850 nm: 1.482

Group index of refraction at 1300 nm: 1.477

Mechanical Characteristics

Fibre: 4 - 24 tightly buffered fibres

900µm +/- 50µm

Strength member: Glass yarns

Water blocking: Swellable thread

Sheath: LS0H, UV stabilized

Sheath Colour: Lime Green

Core diameter: 50 ± 2.5µm

Core non-circularity: ≤ 5 %

Core-cladding concentricity error: ≤ 1µm

Cladding diameter: 125.0 ± 1.0 µm

Cladding non-circularity: ≤ 0.7 %

Coating diameter uncoloured: 242 ± 7 µm

Coating diameter coloured: 250 ± 15 µm

Coating non-circularity: ≤ 5 %

Coating-cladding concentricity error: ≤ 10 µm

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ATTRIBUTE	METHOD	LIMITS				
Fibre Count	N/A	4	6	8	12	24
Nominal Diameter (mm)	N/A	7.5	7.5	8.0	8.3	9.4
Nominal Weight (Kg/km)	N/A	48	49	54	62	87
Maximum Installation Load (a few hours) N	N/A	1500				2400
Short Term Tensile Strength (some days) N	E1	750				1200
Permanent Tensile Strength (N)	E1	500				1000
Impact (J)	E4	15J				
Crush (compressive strength) (N/100mm)	E3	2000				1000
Torsion	E7	5 cycles \pm 1 turn				
Min. bend radius	E11	75	80	85	95	
Min. bend radius under tension	E18A	150	160	170	190	
Temperature Range Operation and Installation	F1	-20°C to +60° C				
Temperature Range: Storage	F1	-40°C to +70° C				

Ordering Information

Order No.	SAP No.	Description
CFR-00717	183280024	Fibre Optic Cable OM5 50/125µm MM TB LSOH B2ca-s1a,d1,a1 4F
CFR-00718	183280025	Fibre Optic Cable OM5 50/125µm MM TB LSOH B2ca-s1a,d1,a1 6F
CFR-00719	183280026	Fibre Optic Cable OM5 50/125µm MM TB LSOH B2ca-s1a,d1,a1 8F
CFR-00720	183280027	Fibre Optic Cable OM5 50/125µm MM TB LSOH B2ca-s1a,d1,a1 12F
CFR-00721	183280028	Fibre Optic Cable OM5 50/125µm MM TB LSOH B2ca-s1a,d1,a1 24F

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