

Fibre Optic Distribution Cable MM, OM5, Indoor/Outdoor Armoured Loose Tube, LSOH, B2ca-s1a,d1,a1

molex

Molex LSOH OM5 50/125µm central loose tube fibre cable can be used for LAN and WAN applications. The cable is suitable for indoor applications in ducts and on trays and can be direct buried with sand back-filling in outdoor applications. The cable features corrugated steel tape armour for rodent protection and contains glass yarn strength members and a UV stabilised, LSOH 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.



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-059

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

Loose Tube gel filled

Armouring: 0.15mm corrugated steel tape

Strength member: Glass yarns

Sheath: LSOH, UV stabilised

Sheath Colour: Lime Green

Core diameter: $50 \pm 2.5 \mu\text{m}$

Core non-circularity: ≤ 5 %

Core-cladding concentricity error: ≤ 1 µm

Cladding diameter: $125.0 \pm 1.0 \mu\text{m}$

Cladding non-circularity: ≤ 0.7 %

Coating diameter uncoloured: $242 \pm 7 \mu\text{m}$

Coating diameter coloured: $250 \pm 15 \mu\text{m}$

Coating non-circularity: ≤ 5 %

Coating-cladding concentricity error: ≤ 10 µm

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PHYSICAL PROPERTIES IEC 60794-1-21/22

ATTRIBUTE	METHOD	LIMITS
Nominal Outer Diameter	N/A	2-24 Fibres: 8.5mm
Nominal Weight	N/A	2-24 fibres: 100kg/km
Max. installation tensile strength	E1	1500N
Permanent tensile strength	E1	750N
Compressive strength	E3	2000N/100mm
Torsion	E7	5 cycles \pm 1 turn
Min. bend radius loaded	E11	R = 85mm
Temperature Range	F1	Storage: -40°C to +70°C, Operation: -40°C to +70°C Max attenuation variation at operational temperature range = MM 0.5 dB/km

Ordering Information

Order No.	SAP No.	Description
CFR-00707	183150075	Fibre Optic Cable OM5 50/125 μ m MM ARM LT LS0H B2ca-s1a,d1,a1 4F
CFR-00708	183150076	Fibre Optic Cable OM5 50/125 μ m MM ARM LT LS0H B2ca-s1a,d1,a1 6F
CFR-00709	183150077	Fibre Optic Cable OM5 50/125 μ m MM ARM LT LS0H B2ca-s1a,d1,a1 8F
CFR-00710	183150078	Fibre Optic Cable OM5 50/125 μ m MM ARM LT LS0H B2ca-s1a,d1,a1 12F
CFR-00711	183150079	Fibre Optic Cable OM5 50/125 μ m MM ARM LT LS0H B2ca-s1a,d1,a1 24F

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