

Fibre Optic Distribution Cable MM, OM5, Indoor/Outdoor, Tight Buffered, LS0H Cca-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 Cca-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:

Fibre:

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: Cca-s1a,d1,a1

DoP No: MLXCES-2018-F-60

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 fibre 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

www.molexces.com

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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 | 10J | | | | |
| 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-00712 | 183280019 | Fibre Optic Cable OM5 50/125µm MM TB LS0H Cca-s1a,d1,a1 4F |
| CFR-00713 | 183280020 | Fibre Optic Cable OM5 50/125µm MM TB LS0H Cca-s1a,d1,a1 6F |
| CFR-00714 | 183280021 | Fibre Optic Cable OM5 50/125µm MM TB LS0H Cca-s1a,d1,a1 8F |
| CFR-00715 | 183280022 | Fibre Optic Cable OM5 50/125µm MM TB LS0H Cca-s1a,d1,a1 12F |
| CFR-00716 | 183280023 | Fibre Optic Cable OM5 50/125µm MM TB LS0H Cca-s1a,d1,a1 24F |

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