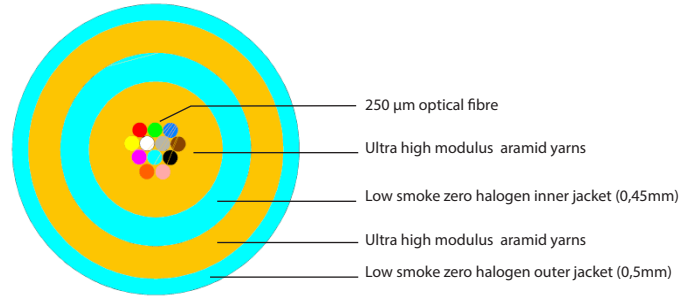


Microcable OM3 FanOut - FanOut 6 LC Duplex Ultra 2mm LSZH

Cat. No(s): 0 324 01/02/03/04/05



1. DESCRIPTION

Preterm factory made with OM3 microcable 12 fibres into 2mm duplex ruggedized tails. Assembled with LC duplex Ultra connectors..

2. APPLICATIONS

Convenient for internal applications. Ruggedized tails allow direct connection to the front of panel or active equipment. The Legrand core, ultra and quantum connectivity performances are far superior than standard. They provide the following benefits for the user :

- Wider range of applications
- More flexibility in the design
- Energy saving on the active (transceivers).

3. BREAKOUT MODULE

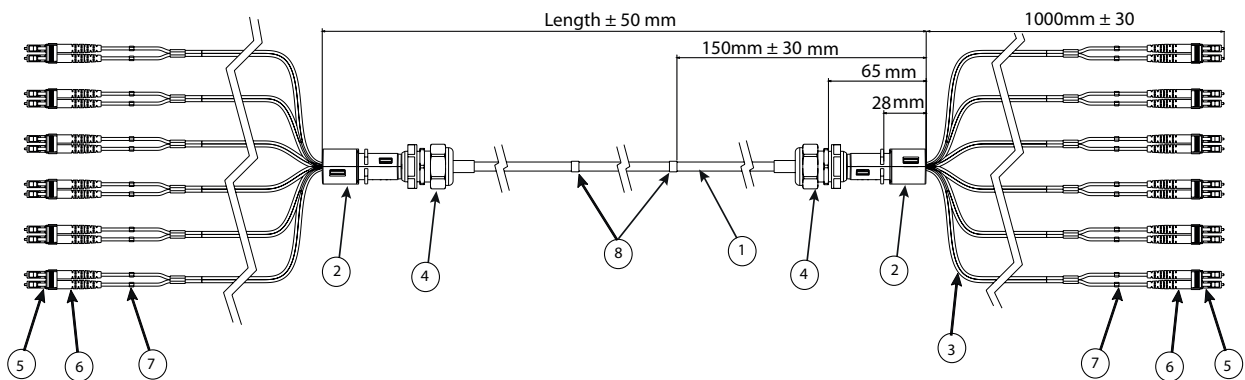
The breakout is the element providing secure transition between cable and tails. The cable, the furcation tubing and their strength members are securely attached to the breakout module, the 250 µm fibres are securely routed from cable into the tails.

4. FURCATION TUBING

Diameter : 2mm

OM3 : colour Aqua

5. ILLUSTRATION



| | | | | | |
|---|------------------------------|---|---------------------|---|---------------------|
| 1 | Microcable | 4 | Cable Gland | 7 | Identification clip |
| 2 | Breakout Module | 5 | Connector LC Duplex | 8 | Serial Number Label |
| 3 | 2mm Ruggedized Duplex Tubing | 6 | Connector Boot | | |


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6. CONNECTOR LC ULTRA PERFORMANCE 2MM DUPLEX

6.1 Construction

| Connector Type | | LC Multimode | |
|------------------|---------------|------------------|--|
| Configuration | | Duplex | |
| Ferrule | Material | Zirconia ceramic | |
| | Concentricity | ≤ 1 µm | |
| Polishing | | PC | |
| Connector colour | | Beige | |
| Boot | Colour | White | |
| | Size | 2mm | |



6.2 Mechanical performance

| Mechanical properties | Criteria with attenuation change <0,2dB | Standard |
|-----------------------|---|----------------|
| Mating durability | 500 matings | IEC 61300-2-2 |
| Vibration | 10-55Hz, 0.75 amplitude | IEC 61300-2-1 |
| Drop | Drop height 1.5m, 5 drops | IEC 61300-2-12 |
| Cable retention | Magnitude 70N | IEC 61300-2-4 |
| Cable torsion | 1.5kg | IEC 61300-2-5 |
| Operating temperature | -25°C to +70°C 12 cycles | IEC 61300-2-22 |
| Cold | -25°C for 96 hours | IEC 61300-2-17 |
| Dry heat | +70°C for 96 hours | IEC 61300-2-18 |

6.3 Optical performance

| Optical performance | Multimode | Standard |
|---------------------|-----------|----------------|
| IL Max/Master | 0.15dB | IEC 61300-3-4 |
| Typ. IL/Master | 0.08dB | IEC 61300-3-4 |
| IL Max/Random * | 0.20dB | IEC 61300-3-34 |
| Typ. IL / Random * | 0.10dB | IEC 61300-3-34 |
| Return Loss | > 35dB | IEC 61300-3-6 |

* Performance is guaranteed only with other components of the same Legrand range (Core, Ultra and Quantum). Mixing ranges or use of components of other brand may lead to a different performance of the system. The uncertainty value for field measurement with LSPM testing using a reference cord defined in ISO/IEC 14763-3 applies to field testing with proposed Legrand testing cords. Refer to the Fiber Optic Testing Guide for Legrand Solutions.

6.4 Production quality control

- 3D endface geometry (interferometry): sampling quality control
- Optical performance: 100% factory tested.

6.5 Standard

IEC 61754-20 ; ANSI/TIA 604-10
ROHS and REACH Compliant

7. CABLE APPLICATION AND INSTALLATION

The intended application for this cable is internal connections inside data centres, where the cable is installed on "raceways" or other means where a robust cable is called for.

Following catalog numbers are available or ready to use, other configurations made to order :

| Cat. No. | Designation | Dimension |
|----------|---|-----------|
| 0 324 01 | 6 LC Duplex - 6 LC Duplex Microcable OM3 Ultra LSZH | 10 m |
| 0 324 02 | | 20 m |
| 0 324 03 | | 30 m |
| 0 324 04 | | 40 m |
| 0 324 05 | | 50 m |

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8. CABLE TECHNICAL SPECIFICATIONS

8.1 Standards

EN 50173-5, IEC 60794-2-20, ISO/IEC 24764

8.2 Flame resistance

LSHF-FR (FRNC) : IEC 60332-1-2 ; IEC 60754-1 ; IEC 60754-2 ; IEC 61034

EN 50399 : Class Dca s2, d2, a1, Class Eca

8.3 Construction

| | |
|-----------------|---|
| Fibre | 12 primary coated fibres nominally 242 µm |
| Fibre colours | According to ANSI/TIA 598-C also in agreement with IEC 60304 : blue, orange, green, brown, grey, white, red, black, yellow, violet, pink and aqua |
| Strength member | Ultra high modulus Aramid yarns |
| Inner sheath | Halogen free, flame resistant thermoplastic sheathing compound acc. to EN 50290-2-27, UV stabilised, 0,45 mm |
| Reinforcement | Ultra high modulus Aramid yarns |
| Outer sheath | Halogen free, flame resistant thermoplastic sheathing compound acc. to EN 50290-2-27, UV stabilised, 0,5 mm |
| Sheath colours | Aqua, RAL 6027 |

8.4 Physical properties

| Property | IEC 6794-1-21/22 method | Value |
|------------------------------|-------------------------|---|
| Fibre count | - | 12 |
| Nominal dimensions | - | Inner : Ø 3.0 mm +0.1 mm -0.2 mm |
| | | Outer : Ø 4.5 mm +0.2 mm -0.2 mm |
| Nominal weight (kg/km) | - | 20 |
| Tensile strength (dynamic) | E1 | 1000 N |
| Tensile strength (permanent) | E1 | 500 N |
| Compressive strength (crush) | E3 | 400 N |
| Impact | E4 | 5 Nm, R = 12.5 mm |
| Torsion | E07 | Pass |
| Kink | E10 | No Kink |
| Min. Bending radius | E11 | R = 20 mm |
| Temperature range | F12 | Accordind to IEC 60794-2-50 F12 : -10°C to 70°C |

9. FIBRES TECHNICAL SPECIFICATIONS

9.1 General and application

This fibre is a laser-optimised, bend-insensitive graded-index multimode OM3 fibre suitable for transmission speeds of 10 Gb/s or higher. It has a 50 µm core diameter and a 125 µm cladding diameter. The fibre is optimised for maximum transmission properties at 850 nm ; but is also well suited for 1300 nm systems. This fibre is fully compliant to the OM3 specification. The fibre supports 550 m link length for a 1000BASE-SX system and 300 m for 10GBASE-SX, as well as 70m for 25GBASE-SR and 50GBASE-SR. The outstanding bending performance of this fibre supports future compact cable management.

9.2 Standards and normes

IEC 60793-2-10 : type A1a.2

EN 60793-2-10 : type A1a.2

ANSI/TIA-492 AAAC

EN 50173 : Category OM3

ISO/IEC 11801 : Category OM3

IEEE 802.3 - 2002 incl. amendment 802.3ae - 2002

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9.3 Attenuation IEC 60793-1-40

| | |
|--|---------------------|
| Maximum attenuation value of cable at 850 nm | ≤ 3.0 dB/km |
| Maximum attenuation value of cable at 1300 nm | ≤ 1.0 dB/km |
| Attenuation limit according to IEC 60793-2-10, 850 nm | ≤ 2.5 dB/km |
| Attenuation limit according to IEC 60793-2-10, 1300 nm | ≤ 0.8 dB/km |
| Inhomogeneity of OTDR trace for any two 1000 meter fibre lengths | Max. 0.1 dB/km |
| Fibre bending loss R=7.5 mm 850/1300 nm | ≤ 0.2 dB / ≤ 0.5 dB |
| Fibre bending loss R=15 mm 850/1300 nm | ≤ 0.1 dB / ≤ 0.3 dB |

9.4 Bandwidth - IEC 60793-1-41

| | |
|--|---------------|
| Overfilled (OFL) modal bandwidth at 850 nm | ≥ 1500 MHz.km |
| Overfilled (OFL) modal bandwidth at 1300 nm | ≥ 500 MHz.km |
| Effective Modal Bandwidth (EMB) at 850 nm (Assured by means of differential mode delay (DMD) measurement as specified in IEC 60793-1-49) | ≥ 2000 MHz.km |

9.5 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 |

9.6 Other properties

| Attribute | Measurement method | Units | Limits |
|--|--------------------|-------|-------------------------------------|
| Core diameter | IEC/EN 60793-1-20 | μm | 50 ± 2.0 |
| Cladding diameter | IEC/EN 60793-1-20 | μm | 125.0 ± 1.0 |
| Cladding non-circularity | IEC/EN 60793-1-20 | % | ≤ 0.7 |
| Core non-circularity | IEC/EN 60793-1-20 | % | ≤ 5 |
| Core-cladding concentricity error | IEC/EN 60793-1-20 | μm | ≤ 1.5 |
| Primary coating diameter - uncolored | IEC/EN 60793-1-21 | μm | 242 ± 5 |
| Primary coating diameter - colored | IEC/EN 60793-1-21 | μm | 250 ± 15 |
| Primary coating non-circularity | IEC/EN 60793-1-21 | % | ≤ 5 |
| Primary coating-cladding concentricity error | IEC/EN 60793-1-21 | μm | ≤ 6 |
| Proof stress level | IEC/EN 60793-1-30 | Gpa | ≥ 0.7 (≈1%) |
| Typical average strip force | IEC/EN 60793-1-32 | N | 1.7 |
| Strip force (peak) | IEC/EN 60793-1-32 | N | 1.3 ≤ F _{peak strip} ≤ 8.9 |
| Numerical aperture | IEC/EN 60793-1-43 | N | 0.200 ± 0.015 |

10. PACKAGING

| | | | | | |
|------------------|-------------|----------|----------|----------|----------|
| Catalogue number | 0 324 01 | 0 324 02 | 0 324 03 | 0 325 04 | 0 325 05 |
| Length (m) | 10 | 20 | 30 | 40 | 50 |
| Packaging | Carton reel | | | | |