# LANmark-OF ENSPACE Method B MTP-MTP Pre-Term Cca

**LANMARK-OF ENSPACE METHOD B PRE-TERM SM X96F MTP/M-MTP/M LOW LOSS FAN OUT E XXXM LSZH CCA YELLOW**

**Aginode Ref:** N154.B096MMExxx-YC

- Factory terminated MTP-MTP fibre assembly
- Flexible fan-out for ease of installation in patch panel
- Small cable diameter reduces required data centre space
- Method B polarity Pre-Term
- Fibre count: 96F
- Fibre type: singlemode (OS2)



## STANDARDS

ISO/IEC 11801

### Pre-Term for data centres, buildings and campus based on Micro-Bundle Universal

The cable has a small diameter and bend raduis to meet data centre requirements.

The cable is watertight and rodent retardant due to the glass yarns.  It can be used in buldings and between buildings.

### Fire performance

The cables have been tested for fire performance according to the new Construction Product Regulation: EN50575:2014 +A1:2016.

According to this standard the cables have a very high fire performance with minimal fire load and spread, smoke density, droplets and acidity: Cca.

The Declaration Of Performance for these cables can be found under fibre cables and the corresponding cable for fibre count and fibre type in the section “Micro-Bundle Universal Cca”.

In addition the cables meet the requirements for flame non-propagation (IEC 60332-1) and fire non-propagation (IEC 60332-3).

### MTP*-MTP Pre-Term characteristics

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The MTP-MTP Pre-Term has standard pinned (male) connectors. This matches with the un-pinned (female) connectors in the ENSPACE modules and the female Plug&Play modules.

In order to reduce overlengths in data centers the Pre-Terms are custom made and available with 1m increments. The "xxx" in the N-number is the length in metre between the cable glands, i.e. the Pre-Term length between the back side of the patch panels.

After the cable gland the Pre-Term has a fan-out. The fan-out splits the cable into tubes. The tubes are reinforced with aramid yarns. At the end of each tube a MTP-connectors is mounted. The jacket of the tube is the same colour as the cable jacket. Close to the MTP-connector a label is installed to identify the number of the leg.

The Pre-Terms are optimized for both pulling and laying in data centers. On both sides the MTP connectors are protected by a bubble foam. On one side there is also a protecting net around the fan-out with MTP connectors and a pulling eye. The maximum pulling force on the pulling eye is 450N.

The MTP-MTP Pre-Terms come with a PG-13 cable gland that fits into the LANmark-OF ENSPACE and Plug&Play patch panel slots.

**Optical Performance and Polarity**

The insertion loss of a multimode MTP-MTP* connection has Ultra Low Loss performance: typical insertion loss is 0,125 dB with a maximum of 0,25 dB insertion loss.

The insertion loss of a singlemode MTP-MTP* connection has Low Loss performance: typical insertion loss is 0,3 dB with a maximum of 0,5 dB insertion loss.

The insertion loss of a MTP-MTP* connection is measured according to standard IEC61300-3-45.

The minimum return loss for a multimode MTP connection is 20 dB measured according to IEC 61300-3-6. The minimum return loss for a singlemode MTP connection is 45 dB measured according to IEC 61300-3-6.

The method B Pre-Term has a straight key up / key up design. This is in agreement with standard TIA-568.3-D-2016 method

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For a duplex transmission like for 10GBase-SR (10G) polarity in the channel is maintained with this method B design and the use of a straight cassette on side A and a crossed cassette on side B. In addition the same patch cords can be used on both sides.

For parallel optics like for 40GBase-SR4 (40G) these method B Pre-Terms can be used with key up/key down adaptors on both sides of the channel. The same straight female-female patch cords can be used on both sides.

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# LANmark-OF ENSPACE Method B Pre-Term SM x96F MTP/M-MTP/M Low Loss fan out E xxxm LSZH Cca Yellow

## Characteristics

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| **Construction characteristics** | |
| Fiber optic type | SM (G657.A1) |
| **Dimensional characteristics** | |
| Number of optical fibres | 96 |
| Nominal outer diameter (mm) | 8.4 mm |
| Approximate net weight | 77 kg/km |
| **Mechanical characteristics** | |
| Mechanical resistance to impacts | 10 impacts of 1 N.m |
| Crush resistance (IEC 60794-1-E3) | 100 N/cm |
| **Transmission characteristics** | |
| Insertion Loss, maximum, dB | 0.5 dB |
| Return Loss, Minimum, dB | 45 dB |
| **Usage characteristics** | |
| Operating temperature, range | -10...60 °C |
| Fire retardant | IEC 60332-3 |
| Minimum dynamic operating bending radius | 150.0 mm |
| Minimum static operating bending radius | 120 mm |
| Flame retardant | IEC 60332-1 |
| Storage temperature, range | -20...60 °C |
| Mechanical durability/matings | 1000 |
| Ambient installation temperature, range | 0...40 °C |

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