# LANmark-OF ENSPACE LC/LC Pre-Term Euroclass Cca

**LANMARK-OF ENSPACE PRE-TERM SM X24F LC(900MM)-LC(900MM) FAN OUT E XXXM LSZH CCA YELLOW**



**Aginode Ref:** N154.D024LLExxx-YC

- Factory terminated LC fibre assembly
- ENSPACE Pre-Term for installation in LANmark-OF ENSPACE Patch Panel
- Fibre count:24F
- Fibre type: Singlemode (OS2)
- Small cable diameter reduces required data centre space
- Reaction to fire: Cca according to EN50575:2014 +A1:2016

The assembly consists of a Micro-Bundle Universal Cca cable terminated with LC connectors on each side in a factory.

## 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.

## STANDARDS

ISO/IEC 11801

## 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).

*All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Aginode is indicative only and shall not be binding on Aginode or be treated as constituting a representation on the part of Aginode.*

## Pre-Term characteristics

The Pre-Term has a dual stage fan-out design.

The first fan-out point is between the cable and the legs of the fan-out. Each leg of the fan-out contains 1 Micro-Bundle with 12 fibres inside. This fan-out has been reinforced with aramid yarns.

The second fan-out distributes the reinforced Micro-Bundle into 12 buffered fibres. The second fan-out is optimized for installation and fixation into the ENSPACE adaptor modules.

The Tight Buffered fibres of the Pre-Term are easy to arrange inside a ENSPACE module since they are at the same time flexible and robust enough to handle.

The connectors on the Tight Buffered fibres have coloured boots for identification in compliance with the TIA/EIA standard. In manufacturing a fibre pair flip has been implemented.  When installing the connectors inside the ENSPACE modules the coloured boots need to match the colours of the integrated strip inside the ENSPACE module to obtain transmit-receive polarity in the channel.

The fan-out is protected with a bubble foam for protection during transport and installation. Every bundle of 12 connectors has an additional individual protection to avoid mixing them up with other connectors.

A pulling eye system is positioned at one side of the Pre-Term to facilitate the installation. This pulling eye is connected to the internal strength element of the cable. The maximum pulling force on the pulling eye is 450N.

The LC/LC Pre-Terms come with a PG-13 cable gland that fits into the LANmark-OF ENSPACE patch panel slots.

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 rear of the patch panels.

The typical value for the insertion loss for the low loss LC/LC connection is 0,15 dB. The limit value is 0,25 dB measured according to standard IEC61300-3-4. The minimum return loss is measured according to standard IEC 61300-3-6.  For a mutimode LC connection the RL is 30 dB, for a singlemode LC connection it is 45 dB and for a LC/APC connection it is 55 dB.

*All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Aginode is indicative only and shall not be binding on Aginode or be treated as constituting a representation on the part of Aginode.*

All LANmark-OF Pre-term assemblies are fully terminated and tested in a quality assured factory environment.

*All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Aginode is indicative only and shall not be binding on Aginode or be treated as constituting a representation on the part of Aginode.*

# LANmark-OF ENSPACE Pre-Term SM x24F LC(900µm)-LC(900µm) fan out E xxxm LSZH Cca Yellow

## Characteristics

| | |
|---|---|
| **Construction characteristics** | |
| Fiber optic type | SM (G657.A1) |
| **Dimensional characteristics** | |
| Number of optical fibres | 24 |
| Nominal outer diameter (mm) | 5.9 mm |
| Approximate net weight | 35 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 | 0.25 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 | 120.0 mm |
| Minimum static operating bending radius | 90 mm |
| Flame retardant | IEC 60332-1 |
| Storage temperature, range | -20...60 °C |
| Mechanical durability/matings | 1000 |
| Ambient installation temperature, range | 0...40 °C |

*All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Aginode is indicative only and shall not be binding on Aginode or be treated as constituting a representation on the part of Aginode.*