LANmark-OF ENSPACE Method C MTP-MTP Pre-Term OFNP APAC

- 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 C polarity Pre-Term
- Only one type of patch cords and one type of cassettes required for duplex transmission
- Fibre count: 12F, 24F, 48F, 96F and 144F
- Fibre type: OM3, OM4 and 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.

Fire performance

The cables have been tested for fire performance according to UL Planum rated.

According to this standard the cables have a very high fire performance with minimal fire load and can be used in air flow space.

MTP*-MTP Pre-Term characteristics

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

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.

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. The maximum pulling force on the pulling eye is 450N. The detachable pulling eye with corrugrated tube can be ordered using PN N890.100HP.

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 for a multimode the MTP-MTP* connection has Low Loss performance: typical insertion loss is 0,15 dB with a maximum of 0,35 dB insertion loss. Ultra Low loss is also available with typical insertion loss 0.125dB with a maximum of 0.25dB insertion loss.

The insertion loss for a singlemode the MTP-MTP* connection has Low Loss performance: typical insertion loss is 0,5 dB with a maximum of 0,75 dB insertion loss. Ultra low loss is also available with typical insertion loss 0.15dB with a maximum of 0.35dB 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 C Pre-Term has a pairflip key up / key down design. This is in agreement with standard TIA-568.3-D-2016 method C.

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

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

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 Method C MTP-MTP Pre-Term OFNP APAC

CHARACTERISTICS

구조적 특성	
Fiber optic type	OM3 50/125
치수	
Number of optical fibres	96
Nominal outer diameter (mm)	10.0 mm
기계적 특성	
Mechanical resistance to impacts	10 impacts of 3 N.m
Crush resistance (IEC 60794-1-E3)	100 N/cm
Maximum installation tension	1000 N
Transmission characteristics	
Insertion Loss, maximum, dB	0.35 dB
Return Loss, Minimum, dB	20 dB
사용 특성	
操作温度范围	-20...60 °C
Minimum dynamic operating bending radius	20 (xD)
Minimum bending radius, static (XD)	10

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.

Product list

	Aginode ref.	Country ref.	이름	Fiber optic type	Nominal outer diameter (mm)	Number of optical fibres	Crush resistance (IEC 60794-1-E3)	Maximum installation tension	Mechanical resistance to impacts	Insertion Loss, maximum, dB	Return Loss, Minimum dB
	N145.P96MMExxxA	-	LANmark-OF ENSPACE Method C Pre-Term OM3 x96F MTP/M-MTP/M Low Loss xxxm OFNP Aqua	OM3 50/125	10.0 (mm)	96	100 (N/cm)	1000 (N)	10 impacts of 3 N.m	0.35 (dB)	20 (dB)
	N144.P48MMExxxY-M	-	LANmark-OF ENSPACE Method C Pre-Term SM x48F MTP/M APC-MTP/M APC xxxm OFNP Yellow	SM (G657.A1)	7.7 (mm)	48	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.75 (dB)	45 (dB)
	N144.P96MMExxxY-M	-	LANmark-OF ENSPACE Method C Pre-Term SM x96F MTP/M APC-MTP/M APC xxxm OFNP Yellow	SM (G657.A1)	10.0 (mm)	96	100 (N/cm)	1000 (N)	10 impacts of 3 N.m	0.75 (dB)	45 (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.

	Aginode ref.	Country ref.	이름	Fiber optic type	Nominal outer diameter (mm)	Number of optical fibres	Crush resistance (IEC 60794-1-E3)	Maximum installation tension	Mechanical resistance to impacts	Insertion Loss, maximum, dB	Return Loss, Minimum dB
	N144.P24MMExxxY-M	-	LANmark-OF ENSPACE Method C Pre-Term SM x24F MTP/M APC-MTP/M APC xxxm OFNP Yellow	SM (G657.A1)	7.5 (mm)	24	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.75 (dB)	45 (dB)
	N145.P48MMExxxA-U	-	LANmark-OF ENSPACE Method C Pre-Term OM3 x48F MTP/M-MTP/M Ultra Low Loss xxxm OFNP Aqua	OM3 50/125	7.7 (mm)	48	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.25 (dB)	20 (dB)
	N145.P96MMExxxA-U	-	LANmark-OF ENSPACE Method C Pre-Term OM3 x96F MTP/M-MTP/M Ultra Low Loss xxxm OFNP Aqua	OM3 50/125	10.0 (mm)	96	100 (N/cm)	1000 (N)	10 impacts of 3 N.m	0.25 (dB)	20 (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.

	Aginode ref.	Country ref.	이름	Fiber optic type	Nominal outer diameter (mm)	Number of optical fibres	Crush resistance (IEC 60794-1-E3)	Maximum installation tension	Mechanical resistance to impacts	Insertion Loss, maximum, dB	Return Loss, Minimum dB
	N145.P12MMExxxA-U	-	LANmark-OF ENSPACE Method C Pre-Term OM3 x12F MTP/M-MTP/M Ultra Low Loss xxxm OFNP Aqua	OM3 50/125	4.5 (mm)	12	100 (N/cm)	450 (N)	10 impacts of 3 N.m	0.25 (dB)	20 (dB)
	N145.P24MMExxxA-U	-	LANmark-OF ENSPACE Method C Pre-Term OM3 x24F MTP/M-MTP/M Ultra Low Loss xxxm OFNP Aqua	OM3 50/125	7.5 (mm)	24	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.25 (dB)	20 (dB)
	N144.P12MMExxxY-M	-	LANmark-OF ENSPACE Method C Pre-Term SM x12F MTP/M APC-MTP/M APC xxxm OFNP Yellow	SM (G657.A1)	4.5 (mm)	12	100 (N/cm)	450 (N)	10 impacts of 3 N.m	0.75 (dB)	45 (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.

	Aginode ref.	Country ref.	이름	Fiber optic type	Nominal outer diameter (mm)	Number of optical fibres	Crush resistance (IEC 60794-1-E3)	Maximum installation tension	Mechanical resistance to impacts	Insertion Loss, maximum, dB	Return Loss, Minimum dB
	N147.P48MMExxxV-U	-	LANmark-OF ENSPACE Method C Pre-Term OM4 x48F MTP/M-MTP/M Ultra Low Loss xxxm OFNP Aqua	OM4 50/125	7.7 (mm)	48	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.25 (dB)	20 (dB)
	N147.P96MMExxxV-U	-	LANmark-OF ENSPACE Method C Pre-Term OM4 x96F MTP/M-MTP/M Ultra Low Loss xxxm OFNP Aqua	OM4 50/125	10.0 (mm)	96	100 (N/cm)	1000 (N)	10 impacts of 3 N.m	0.25 (dB)	20 (dB)
	N147.P12MMExxxV-U	-	LANmark-OF ENSPACE Method C Pre-Term OM4 x12F MTP/M-MTP/M Ultra Low Loss xxxm OFNP Aqua	OM4 50/125	4.5 (mm)	12	100 (N/cm)	450 (N)	10 impacts of 3 N.m	0.25 (dB)	20 (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.

	Aginode ref.	Country ref.	이름	Fiber optic type	Nominal outer diameter (mm)	Number of optical fibres	Crush resistance (IEC 60794-1-E3)	Maximum installation tension	Mechanical resistance to impacts	Insertion Loss, maximum, dB	Return Loss, Minimum dB
	N147.P24MMExxxV-U	-	LANmark-OF ENSPACE Method C Pre-Term OM4 x24F MTP/M-MTP/M Ultra Low Loss xxxm OFNP Aqua	OM4 50/125	7.5 (mm)	24	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.25 (dB)	20 (dB)
	N144.P24MMExxxY	-	LANmark-OF ENSPACE Method C Pre-Term SM x24F MTP/M APC-MTP/M APC Ultra Low Loss xxxm OFNP Yellow	SM (G657.A1)	7.5 (mm)	24	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.35 (dB)	45 (dB)
	N147.P96MMExxxV	-	LANmark-OF ENSPACE Method C Pre-Term OM4 x96F MTP/M-MTP/M Low Loss xxxm OFNP Aqua	OM4 50/125	10.0 (mm)	96	100 (N/cm)	1000 (N)	10 impacts of 3 N.m	0.35 (dB)	20 (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.

Aginode ref.	Country ref.	이름	Fiber optic type	Nominal outer diameter (mm)	Number of optical fibres	Crush resistance (IEC 60794-1-E3)	Maximum installation tension	Mechanical resistance to impacts	Insertion Loss, maximum, dB	Return Loss, Minimum dB
N145.P24MMExxxA	-	LANmark-OF ENSPACE Method C Pre-Term OM3 x24F MTP/M-MTP/M Low Loss xxxm OFNP Aqua	OM3 50/125	7.5 (mm)	24	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.35 (dB)	20 (dB)
N145.P48MMExxxA	-	LANmark-OF ENSPACE Method C Pre-Term OM3 x48F MTP/M-MTP/M Low Loss xxxm OFNP Aqua	OM3 50/125	7.7 (mm)	48	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.35 (dB)	20 (dB)
N147.P12MMExxxV	-	LANmark-OF ENSPACE Method C Pre-Term OM4 x12F MTP/M-MTP/M Low Loss xxxm OFNP Aqua	OM4 50/125	4.5 (mm)	12	100 (N/cm)	450 (N)	10 impacts of 3 N.m	0.35 (dB)	20 (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.

	Aginode ref.	Country ref.	이름	Fiber optic type	Nominal outer diameter (mm)	Number of optical fibres	Crush resistance (IEC 60794-1-E3)	Maximum installation tension	Mechanical resistance to impacts	Insertion Loss, maximum, dB	Return Loss, Minimum dB
	N147.P24MMExxxV	-	LANmark-OF ENSPACE Method C Pre-Term OM4 x12F MTP/M-MTP/M Low Loss xxxm OFNP Aqua	OM4 50/125	7.5 (mm)	24	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.35 (dB)	20 (dB)
	N147.P48MMExxxV	-	LANmark-OF ENSPACE Method C Pre-Term OM4 x48F MTP/M-MTP/M Low Loss xxxm OFNP Aqua	OM4 50/125	7.7 (mm)	48	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.35 (dB)	20 (dB)
	N144.P12MMExxxY	-	LANmark-OF ENSPACE Method C Pre-Term SM x12F MTP/M APC-MTP/M APC Ultra Low loss xxxm OFNP Yellow	SM (G657.A1)	4.5 (mm)	12	100 (N/cm)	450 (N)	10 impacts of 3 N.m	0.35 (dB)	45 (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.

Aginode ref.	Country ref.	이름	Fiber optic type	Nominal outer diameter (mm)	Number of optical fibres	Crush resistance (IEC 60794-1-E3)	Maximum installation tension	Mechanical resistance to impacts	Insertion Loss, maximum, dB	Return Loss, Minimum dB
N144.P48MMExxxY	-	LANmark-OF ENSPACE Method C Pre-Term SM x48F MTP/M APC-MTP/M APC Ultra Low loss xxxm OFNP Yellow	SM (G657.A1)	7.7 (mm)	48	100 (N/cm)	660 (N)	10 impacts of 3 N.m	0.35 (dB)	45 (dB)
N145.P12MMExxxA	-	LANmark-OF ENSPACE Method C Pre-Term OM3 x12F MTP/M-MTP/M Low Loss xxxm OFNP Aqua	OM3 50/125	4.5 (mm)	12	100 (N/cm)	450 (N)	10 impacts of 3 N.m	0.35 (dB)	20 (dB)
N144.P96MMExxxY	-	LANmark-OF ENSPACE Method C Pre-Term SM x96F MTP/M APC-MTP/M APC Ultra Low loss xxxm OFNP Yellow	SM (G657.A1)	10.0 (mm)	96	100 (N/cm)	1000 (N)	10 impacts of 3 N.m	0.35 (dB)	45 (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.