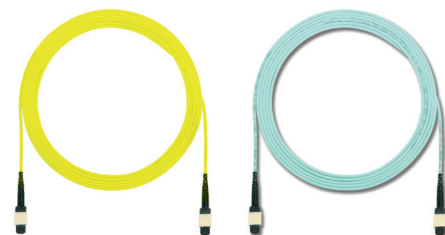


QuickNet™ OM4 and OM5 Signature Core™ Interconnect Cable Assemblies

general information

QuickNet™ OM4 and OM5 Signature Core™ Interconnect Cable Assemblies allow for rapid deployment of high-density permanent links in a single assembly for data center applications requiring quick infrastructure deployment, such as main, horizontal, and zone distribution areas. These interconnect cable assemblies optimize cable routing requirements to ensure efficient use of pathway space and significantly reduce installation time and cost. They are built with modular MPO connectivity and provide compatibility, flexibility, and system performance in all permanent link applications.



technical information

OM4 and OM5 Signature Core™ Fibers are modal and chromatic dispersion compensating multi-mode fibers designed for optimum performance with high-speed Vertical Cavity Surfacing Emitting Lasers (VCSEL) transceivers. The refractive index profile is engineered to correct for the interaction between modal and chromatic dispersion increasing the total channel bandwidth.

Like OM3 and OM4 fiber types, the actual supported reach for Signature Core™ Fiber family depends on the electrical and optical characteristics of the VCSEL transceiver¹.

OM4 Signature Core™ provides you on average 20% longer reach than OM4 defined standard for all applications using Ethernet, Fibre Channel and Cisco BiDi technologies. For example, the OM4 Signature Core™ Fiber will support a 600m reach with 10GBASE-SR transceivers compared to a 400m maximum reach over OM4 as specified in IEEE 802.32.

OM5 Signature Core™ provides you on average 15% longer reach than OM5 defined standard for all applications that use Short Wavelength Division Multiplexing (SWDM). SWDM is a technology that boosts transmission capacity by sending multiple signals in four wavelengths across the 850nm to 940nm on a single fiber.

OM4 and OM5 Signature Core™ Fibers are 100% standards compliant meeting all OM3 and OM4 specifications, with an additional requirement for Differential Mode Delay (DMD) that compensates for modal and chromatic dispersion effects⁴. OM5 Signature Core™ includes additional bandwidth characterization at 953 nm to support extended distances when using SWDM.

application

Data centers requiring quick infrastructure deployment with extended reach that want to maintain bandwidth throughout the infrastructure.

construction

Cable type:	3.0mm round indoor
Cable jacket ratings:	Optical Fiber Non-Conductive Plenum (OFNP) Low Smoke Zero Halogen (LSZH)
Fiber types:	Signature Core™ OM4+ and OM5+
Connector end 'A':	Type: MPO female Color: Black and Aqua Polarity: Method A and Method B
Fiber count:	12-fiber
Jacket color:	Aqua for OM4 Signature Core™ Lime green for OM5 Signature Core™
Connector end 'B':	Type: MPO female Color: Black and Aqua Polarity: Method A and Method B

optical properties

Cable attenuation:	2.3dB/km 850nm 0.6dB/km @ 1300nm
Maximum connector insertion loss:	0.25dB
Minimum connector return loss:	30dB

physical properties

Cable outside diameter (OD):	3.0mm
Minimum bend radius	Under load: 20 x cable OD Static: 10 x cable OD
Cable tensile strength (installation):	22N
Cable compressive load:	35N/cm short term 110N/cm long term
Cable flex:	25 cycles
Cable twist:	10 cycles

environmental properties

Storage and shipping temperature:	-40°C to +70°C
Installation temperatures:	0°C to +40°C
Operating temperature:	0°C to +70°C

standards

Meets or exceeds ISO/IEC 11801, TIA/EIA-568-C.3, TIA-604-5 (FOCIS-5), TIA/EIA-568-C.1, RoHS compliant for OM4
ANSI/TIA-492AAAE, IEC 60793-2-10 Ed 6, TIA 568.3-D, ISO 11801 Ed 3, RoHS compliant for OM5

¹ The actual channel reach of a laser optimized, multimode fiber (OM3, OM4, or Signature Core™) depends on the optical and electrical parameters of the VCSEL transceiver. For worst-case optical and electrical parameters, Signature Core™ Fiber will provide at least 20% greater reach over standards un-compensated OM4 fiber.

² OM4 fiber was ratified in the IEEE802.3/D3.0 proceedings from 15-Dec-2011, Table 52-6 with an Operating Range of 2 to 400 meters.

³ Reach values are a minimum.

⁴ Differential Mode Delay (DMD) is a metric defined in telecommunications industry association standard EIA/TIA 455-220-A, January 2003, which describes a method for measuring the modal dispersion of laser optimized multimode mode fiber.

⁵ OM5 fiber has been approved as the new wideband multimode standard on June 2016, by ANSI/TIA-492AAAE.

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Part Number

Example: FWTRP7N7NKNF001 = Fiber OM5+ Signature Core™, 12-fiber, 3.0mm round indoor, Plenum rate, PanMPO™ Female with no breakout to PanMPO with no breakout, polarity Method A, no pulling eye, 1 foot

Character	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Example	F	W	T	R	P	7	N	7	N	K	N	F	0	0	1

1 – Type

F = Fiber product

2 – Fiber Type

S = OM4+ Signature Core™ Fiber

W = OM5+ Signature Core™ Fiber

3 – Fiber Count

T = 12-fiber

4 – Cable Type

R = 3.0mm round indoor

5 – Flame Rating

L = Low Smoke Zero Halogen (LSZH)

P = Optical Fiber Non-conductive Plenum (OFNP)

6 – Connector Type End ‘A’

7 = PanMPO™ Female

8 = PanMPO™ Male

7 – Connector Variant

N = No variant

8 – Connector Type End ‘B’

7 = PanMPO™ Female

8 = PanMPO™ Male

9 – Connector Variant

N = No variant

10 – Performance/Polarity

K = Polarity A, Ultra IL

L = Polarity B, Ultra IL

11 – Pulling Eye

N = No pulling eye

12 – Unit of Measure

F = feet

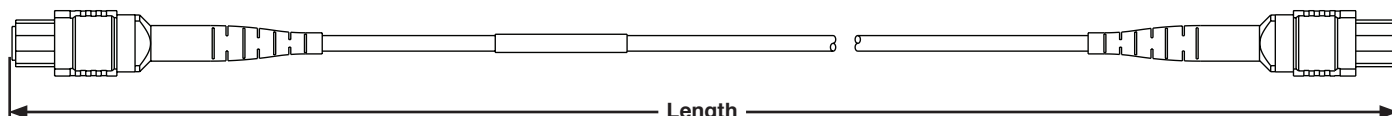
M = meters

13, 14, and 15 – Length

001 – 030 meters

001 - 100 feet

QuickNet™ OM4 and OM5 Signature Core™ Interconnect Cable Assembly Detail



Notes:

- Standard lengths for MPO to MPO OM4 Signature Core™ Interconnect Cables are available from 1 – 30 meters in increments of 1 meter. For additional availability, please contact Panduit Customer Service.
- Cable Assembly lengths are measured as the distance between the furthest connector tips.
- For hybrid solutions and special cable constructions/ratings/colors/availability, consult Panduit.
- Standard lengths for PanMPO to PanMPO OM5 Signature Core™ Interconnect Cables are available from 1 – 30 meters in increments of 1 meter as well as from 1 - 100 feet in increment. For additional availability, please contact Panduit Customer Service.

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FBSP135--SA-ENG
12/2017