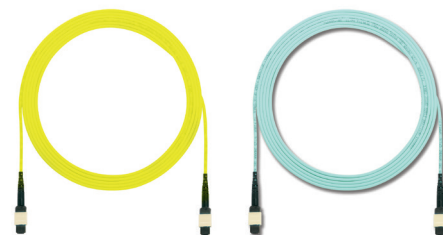


# QuickNet™ OM4 and OM5 Signature Core™ Interconnect Cable Assemblies

## 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 transceiver<sup>1</sup>.

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 effects<sup>4</sup>. 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

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

## optical properties

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

## physical properties

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

## environmental properties

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

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> Reach values are a minimum.

<sup>4</sup> 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.

<sup>5</sup> 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

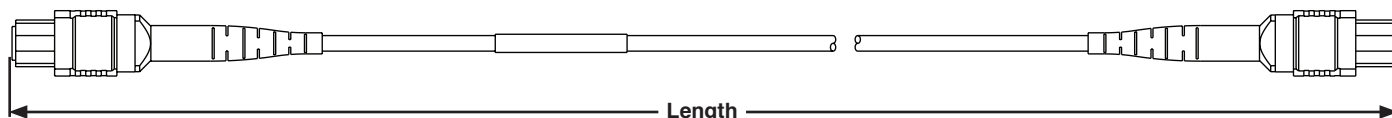
M = meters

### 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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