

# QuickNet™ OM4 and OM5 Signature Core™ MTP\* Fiber Optic Cassettes

**PANDUIT®**  
SPECIFICATION SHEET

## general information

QuickNet™ OM4 and OM5 Signature Core™ MTP\* Fiber Optic Cassettes comply with IEEE 802.3ae 10 GbE and ANSI T11.2 Fibre Channel requirements. QuickNet™ Signature Core™ MTP\* Fiber Optic Cassettes employ high performance 12-fiber MTP\* connectivity on the rear of the units routed to discrete SC or LC connectivity on the front. Colors for OM4 and OM5 shall follow respectively TIA/EIA-568-C.3 and TIA 568.3 -D suggested color identification scheme. They interconnect with high-density SFF MTP\* ribbon interconnect cable assemblies. High-density cassette patch panels shall hold up to 8 cassettes, allowing up to 96 fiber connections to be deployed in one rack unit (1 RU).



## 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

Allows system designers to tailor configuration, reach and breakout construction to application requirements; to minimize waste, optimize cable management, speed deployment, and improve flexibility and manageability for lower installation costs.

## construction

|                               |                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------|
| <b>Fiber types:</b>           | Signature Core™ OM4+ 50/125µm<br>Signature Core™ OM5+ 50/125µm                   |
| <b>Fiber count:</b>           | 12 or 24                                                                         |
| <b>Split sleeve material:</b> | Zirconia ceramic: Signature Core OM4+<br>Zirconia ceramic: Signature Core OM5+   |
| <b>Link loss:</b>             | Signature Core™ OM4+ Ultra Low: 0.35dB<br>Signature Core™ OM5+ Ultra Low: 0.35dB |

## environmental properties

|                                          |                |
|------------------------------------------|----------------|
| <b>Operating temperature:</b>            | 0°C to +70°C   |
| <b>Storage and shipping temperature:</b> | -40°C to +70°C |
| <b>Installation temperature</b>          | 0°C to +60°C   |

## standards

Connectivity meets or exceeds TIA/EIA-568-C.3 and TIA 568.3-D performance requirements for respectively OM4 and OM5 defined standards

|                         |           |
|-------------------------|-----------|
| <b>ROHS 2002/95/EC:</b> | Compliant |
|-------------------------|-----------|

<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.

\*MTP is a registered trademark of US Conec Ltd.

<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 configurator

| Character | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|
| Example   | F | C | 2 | S | A | - | 1 | 2 | - | 1  | 0  | A  | S  |

### 1 – Fiber Product

F = Fiber

### 2 – Product Type

H = HD Flex™

C = Opticom™ Cassette

### 3 – Generation

2 = 2nd generation technology

### 4 – Fiber Type

S = Signature Core™ OM4+ fiber  
available with ultra low loss only

W = Signature Core™ OM5+ fiber  
available with ultra low loss only

### 5 – Performance

A = Ultra low loss

### 6 – Dash

### 7 & 8 – Fiber Count

12 = 12 fiber total

24 = 24 fiber total

### 9 – Dash

### 10 & 11 – Connector Type

10 = Duplex LC adapter

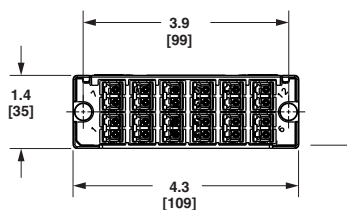
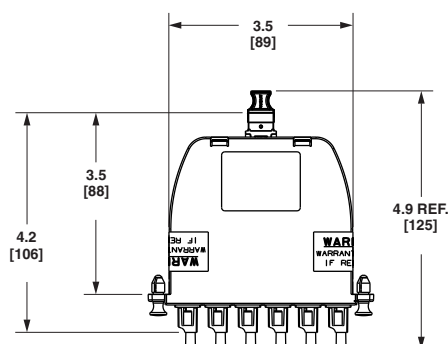
### 12 & 13 – Polarity

AS = Method A

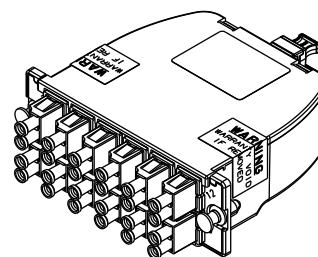
AF = Modified Method A,  
pair flipped

BN = Method B

## QuickNet™ OM4 and OM5 Signature Core™ MTP\* Fiber Optic Cassettes



Front View  
shown without dustcaps



#### Notes:

1. Reference TIA-568-C.0 for details on Method A and Method B Polarities.

2. Method B Cassettes are available upon request. Please contact Panduit for details.

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Dimensions are in inches. [Dimensions in brackets are metric].

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