## QuickNet<sup>™</sup> OM4 and OM5 Signature Core<sup>™</sup> Trunk Cable

#### general information

QuickNet<sup>™</sup> OM4 and OM5 Signature Core<sup>™</sup> Trunk Cable Assemblies allow for rapid deployment of highdensity permanent links in a single assembly for data center applications requiring quick infrastructure deployment, such as main, horizontal, and zone distribution areas. These trunk cable assemblies optimize cable routing requirements to ensure efficient use of pathway space and significantly reduce installation time and cost. Signature Core™ Trunk Cable Assemblies 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<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> 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. 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. Small diameter trunk cable assemblies use 30 to 40% less space which is ideal for high density cable applications.

#### construction

Cable type:	Indoor unarmored			
Cable jacket ratings:	Optical Fiber Non-conductive Plenum (OFNP) Low Smoke Zero Halogen (LSZH)			
Fiber type:	Signature Core <sup>™</sup> OM4+ and OM5+			
Fiber count:	12, 24			
Connector end 'A':	Type: MPO female, PanMPO female Color: Black, Aqua, Lime green Polarity: Method A			
Connector end 'B':	Type: MPO female, PanMPO female Color: Black, Aqua, Lime green Polarity: Method A			
Number of breakouts:	12-fiber: 1 24-fiber: 2			
Jacket color:	Aqua, Lime green			

#### optical properties

Cable attenuation:	1.8dB/km @ 953 nm for OM5 Signature Core	
Maximum connector insertion loss:	0.25dB	
Minimum connector return loss:	30dB	

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

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

<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 fiber.

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

#### physical properties

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Cable outside diameter (OD):	12-fiber: 4.5mm 24-fiber: 5.4mm		
Cable weight:	12F Plenum: 23.6kg/km (15.9lbs/kft)   12F LSZH: 22.2kg/km (14.9lbs/kft)   24F Plenum: 31.7kg/km (21.3lbs/kft)   24F LSZH: 29.7kg/km (19.9lbs/kft)		
Cable tensile rating:	440N (100lb.)		
Cable compressive load:	Breakout outside diameter: 10N/m		
Connector durability:	500 mating cycles*		
Bend radius:	Under load: 20 x cable OD Static: 10 x cable OD		
Transition outside diameter:	12-fiber: 10mm 24-fiber: 10mm		
Pulling eye diameter:	12-fiber: 19mm 24-fiber: 23mm		
Breakout length:	1m		

#### environmental properties

Storage and shipping temperature:	-40°C to +70°C (-40°F to 158°F)
Installation temperatures:	-10°C to +60°C (14°F to 140°F)
Operating temperature:	-20°C to 70°C (-4°F to 158°F)

#### standards

Meets or exceeds ISO/IEC 11801, TIA/EIA-568-C.3, TIA-604-5 (FOCIS-5), TIA/EIA-568-C.1, RoHS compliant, TIA-492-AAAD, IED 60793-2-10 type A1a.3



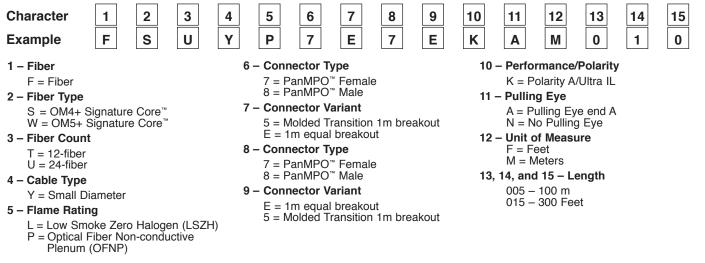




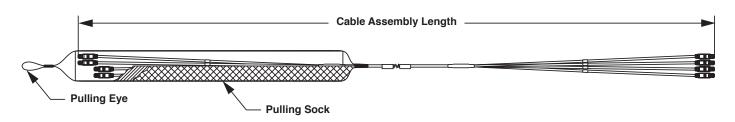
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#### part number

Description: FSUYP7E7EKAM010 = Fiber OM4+ Signature Core<sup>™</sup> 24 fiber, small diameter, plenum, PanMPO<sup>™</sup> female to PanMPO<sup>™</sup> female, method A ultra IL, with pulling eye end A, 10 meters



### QuickNet<sup>™</sup> OM4 and OM5 Signature Core<sup>™</sup> trunk cable assembly detail



Notes:

- 1. Standard lengths for MPO to MPO OM4 Signature Core<sup>™</sup> trunk cables are available from 10 100 feet in increments of 1 foot and 10m 50m in increments of 1m. For additional lengths and availability, please contact Panduit customer service.
- 2. Cable assembly lengths are measured as the distance between the furthest connector tips. Length tolerance is +4 feet (1.2m)/-0 for lengths up to 100 feet (30m) and +6 feet (1.8m)/-0 for lengths greater than 100 feet (30m).

3. For hybrid solutions and special cable constructions/ratings/colors/availability, consult Panduit.

4. Standard lengths for MPO to MPO OM5 Signature Core<sup>™</sup> trunk cables are available from 15 – 300 feet in increments of 5 feet and 5m – 100m in increments of 1m. For additional lengths and availability, please contact Panduit customer service.

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Contact Customer Service by email: cs@panduit.com or by phone: 800.777.3300

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Authorized Distributor

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FWUYL7575KAM056 FWUYP7575KNF07	8 FWUYL7575KAM03	B3 FWUYL7575KAM07	1 FWUYP7575KAF160
FWUYP7575KAF260 FWTYL7575KAM043	FWUYP7575KAF035	FWUYP7575KAF078	FWUYP7575KNF052
FWTYL7575KNM005 FWUYP7575KAF290	FWUYP7575KAF110	FWUYL7575KAM014	FWTYP7575KAF017
FWTYP7575KAF037 FWUYP7575KAF082	FWTYP7575KAF015	FWTYP7575KNF055	FWTYP7575KNF032
FWUYL7575KNM009 FWUYP7575KNF051	FWTYP7575KNF078	FWTYP7575KAF120	FWTYL7575KNM018
FWTYP7575KAF026 FWUYP7575KNF085	FWUYP7575KNF067	FWUYP7575KAF096	FWUYP7575KAF155
FWTYL7575KAM005 FWUYL7575KNM037	FWUYL7575KAM023	FWUYL7575KNM024	FWUYP7575KAF018
FWTYP7575KNF073 FWUYL7575KAM055	FWTYP7575KAF099	FWUYP7575KNF019	FWUYP7575KNF033
FWTYP7575KAF025 FWUYP7575KNF061	FWUYP7575KAF030	FWUYL7575KNM043	FWTYP7575KAF055
FWTYL7575KAM062 FWUYL7575KAM024	FWUYL7575KNM022	FWTYP7575KAF034	FWUYP7575KAF059
FWTYP7575KNF080 FWUYP7575KNF099	FWUYP7575KAF067	FWTYL7575KAM060	FWTYL7575KNM047
FWTYL7575KAM082 FWUYL7575KNM005	FWTYP7575KAF072	FWTYP7575KAF083	FWTYP7575KAF275
FWTYP7575KNF029 FWTYL7575KAM024	FWTYL7575KAM061	FWTYP7575KAF195	FWUYP7575KAF098
FWUYL7575KAM046 FWUYP7575KAF031	FWTYP7575KNF079	FWTYP7575KAF036	FWTYL7575KNM009
FWUYP7575KNF055 FWUYL7575KAM019	FWTYP7575KAF035	FWTYL7575KNM046	FWTYL7575KAM059
FWTYP7575KAF300 FWTYL7575KNM032	FWUYL7575KNM016	FWUYP7575KNF076	FWTYP7575KNF057
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FWUYP7575KAF036 FWTYL7575KNM043	FWUYP7575KAF053	FWTYL7575KAM056	FWUYP7575KNF027
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