Solution Brief

We build, connect, power and protect the world.

Optical Fiber

The Utility Grade Infrastructure (UTG) program has been developed alongside world-class global technology partners. These UTG-rated components from Panduit enable you to support the rapid evolution of technology in today's building environments.

Product Overview

Panduit's UTG solutions provide a common infrastructure platform optimized for operational technology and high-performance applications. The fiber recommendations below complement a full UTG solution.

As part of the UTG-connected architecture, the following convergence zones identify the most common environments fiber will be utilized within and around the building:

Inter-Building | Intra-Building | Extended-Edge

Construction and Performance

Inter-Building Convergence Zone (Building-to-Building)

Utilized to connect two or more buildings, it is a recommended UTG best practice to install single-mode optical fiber for inter-building environments.

Utility Grade Infrastructure

UTG Optical Fiber Tier I

 Opti-Core[®] Indoor/Outdoor Armored Tight Buffered Fiber Optic Cable

Features and Benefits

- Easy installation in building transition applications utilizing field installable connectors
- Interlocking aluminum armor eliminates the need for conduit or duct while providing a smaller crushresistant pathway for improved design flexibility and lower installed cost
- UV-resistant outer jacket, coupled with dry water-blocking technology, addresses environmental concerns for outdoor use

Indoor/Outdoor, Plenum, Interlocking Armored, Singlemode FSLP996

UTG Optical Fiber Tier II

Opti-Core[®] Gel-Free All Dielectric Outside Plant Cable

Features and Benefits

- Dry water-blocking elements make the cable easier to work with compared to gel-filled cables
- All-dielectric option eliminates the need to ground or bond
- Reverse oscillating lay of tubes facilitates mid-span access to the fibers

Outside Plant, Loose Tube, No Gel, All Dielectric, Singlemode FSTN91A



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Optical Fiber

Intra-Building Convergence Zone (Floor-to-Floor)

Utilized to connect two or more areas or floors within a building, it is a recommended UTG best practice to install laser-optimized multimode optical fiber for intra-building environments.

UTG Optical Fiber Tier I Solution:

 Opti-Core[®] Indoor Distribution Interlocking Armored **Fiber Optic Cable**

Features and Benefits

- Provides high-density connectivity and • ease of installation
- Interlocking aluminum armor eliminates the need for conduit or duct while providing a smaller crush-resistant pathway for improved design flexibility and lower installed cost
- OM5 laser-optimized fiber

		Optical Fiber Components	
Indoor, Interlocking Armored, Tight Buffered, OM5	FOPPW24Y	1RU Fiber Shelf, 4 Ports	FCE1U
		4RU Fiber Shelf, 16 Ports	FCE4U
		Wall Mount Fiber Enclosure, 4 Ports	FWME4
		Opticom [®] Fiber Splice Cassette, 12F LC Singlemode With Pigtails	FCS9N-12-10
		12 LC Singlemode Fiber Adapter Panel	FAP12WBUD
		12 LC OM5 Fiber Adapter Panel	FAP12WWDL
		OptiCam [®] LC Simplex Connector, OS1/OS2, Blue	FLCSSCBUY
		OptiCam [®] LC Simplex Connector, OM3/OM4/OM5, Aqua	FLCSMCXAQY
		Fusion Splice LC Connector, Singlemode, Blue	FLCS2/9SOCU
r = Strand count (if applicable) r* = Length in meters		Fusion Splice LC Connector, OM3/OM4/OM5, Aqua	FLCS2/9SOCF
		Opti-Core [®] 2 Fiber Patch Cord,	F92ERLNLNS
6 = 6 fiber 2 = 12 fiber		OS1/OS2, LC Duplex, Riser	

24 = 24 fiber 48 = 48 fiber

- 72 = 72 fiber
- 96 = 96 fiber



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UTG Optical Fiber Tier II Solution:

Opti-Core[®] Indoor/Outdoor Armored Tight Buffered • **Fiber Optic Cable**

Features and Benefits

- Easy installation in building transition applications • utilizing field installable connectors
- Interlocking aluminum armor eliminates the need for conduit or duct while providing a smaller crushresistant pathway for improved design flexibility and lower installed cost
- UV-resistant outer jacket, coupled with dry water-blocking technology, addresses environmental concerns for outdoor use

Indoor/Outdoor, Interlocking Armored, Plenum	FOLPZ24
Indoor/Outdoor, Plenum, Interlocking Armored, Singlemode	FSLP9**
Outside Plant, Loose Tube, No Gel, All Dielectric, Singlemode	FSTN9**
Indoor, Interlocking Armored, Tight Buffered, OM5	FOPPW**Y
Indoor/Outdoor, Interlocking Armored, Plenum	FOLPZ**

1RU Fiber Shelf, 4 Ports	FCE1U
4RU Fiber Shelf, 16 Ports	FCE4U
Wall Mount Fiber Enclosure, 4 Ports	FWME4
Opticom [®] Fiber Splice Cassette, 12F LC Singlemode With Pigtails	FCS9N-12-10P
12 LC Singlemode Fiber Adapter Panel	FAP12WBUDLCZ
12 LC OM5 Fiber Adapter Panel	FAP12WWDLCZ
OptiCam [®] LC Simplex Connector, OS1/OS2, Blue	FLCSSCBUY
OptiCam [®] LC Simplex Connector, OM3/OM4/OM5, Aqua	FLCSMCXAQY
Fusion Splice LC Connector, Singlemode, Blue	FLCS2/9SOCU9BU
Fusion Splice LC Connector, OM3/OM4/OM5, Aqua	FLCS2/9SOCPXAQ
Opti-Core [®] 2 Fiber Patch Cord, OS1/OS2, LC Duplex, Riser	F92ERLNLNSNM***
Opti-Core [®] 2 Fiber Patch Cord, OM5, LC Duplex, Riser	FW2ERLNLNNNM***
OptiCam [®] 2 Termination Tool Kit	FOCTT2-PKIT2

Utility Grade Infrastructure

Optical Fiber

Extended-Edge Convergence Zone (Powered)

Fiber is used to extend the distances of the network and can also be used to extend the distances of certain devices on the network. By combining optical fibers and copper conductors into a common cable, increased distance on both can be achieved. With a known power level and conductor size, voltage drop can be determined across the distance of the run and provide opportunity to remotely power devices up to three kilometers away.

UTG Optical Fiber Tier I Critical

• Opti-Core[®] Indoor-Outdoor Riser Hybrid Powered Fiber Optical Cable

Features and Benefits

- Contains single-mode optical fibers and 12 AWG copper conductors to deliver data signals and power in a single cable
- Rugged and suitable for indoor/outdoor use including wet and dry locations
- Delivers power for PoE+ devices well beyond the standard 328 ft. (100m)
- Fiber is bend insensitive and allows high bit rate data transmission to support 10 GbE, 25 GbE, 40 GbE, 100 GbE, 400 GbE and PON

Indoor/Outdoor, Hybrid Powered Cable, 2x12 AWG, Riser, Tight Buffered, 2 Fiber	FSHRB02-02S12A
Indoor/Outdoor, Hybrid Powered Cable, 4x12 AWG, Riser, 12 Fiber	FSHRB12-04S12C
Indoor/Outdoor, Hybrid Powered Cable, 6x12 AWG, Riser, 12 Fiber	FSHRB12-06S12C





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