

Opti-Core™ Fiber Optic Indoor-Outdoor Cable with Tight Buffered Fibers

Asia Pacific



specifications

The Opti-Core Fiber Optic family of cables shall contain 4 to 72 optical fibers. The fibers shall be tight-buffered for easy termination with field-installable connectors. The cables shall be flame rated for use indoors, complying with UL standards for riser and IEC standards for Low Smoke/Zero Halogen (LSZH). The cables shall have UV resistant and water blocking properties for use in outdoor environments. The cables shall have options for singlemode (OS2) or multimode fibers (OM3 and OM4) to support 10 Gb/s network transmission and beyond.

applications

- Can be used indoors and outdoors; a good choice for entrance facilities
- Typical applications include LAN backbones, backbones in data centers, and routing between telecommunications rooms
- This cable is suited for installation in ducts and on trays

standards and flame rating

Telcordia GR-409-CORE (Indoor Fiber Optic Cable)
 ISO 11801 (Generic Cabling for Customer Premises)
 UL 1666 (Riser)
 IEC 60332 (Flame Retardant)
 IEC 61034 and IEC 60754-2 (Low Smoke and Zero Halogen)
 or Zero Halogen to IEC 60754-1
 RoHS Compliant

cable construction (all-dielectric)

4 to 24 fibers: 900µm tight buffered fibers are protected by water blocking strength members in a flame-retardant outer jacket

48 and 72 fibers: 4 or 6 sub-units with 12 fibers per sub-unit. Cable has a dielectric central strength member and 1-2 ripcords. Subunits are surrounded by tape (Riser only) and outer jacket. Each sub-unit contains twelve 900µm tight buffered fibers, water blocking strength members and a flame-retardant sheath.

Outer jacket: Outer sheath is Black. Material is flame-retardant, UV stabilized and resistant to water and moisture.

optical properties

Maximum attenuation:	OS2 Singlemode	0.7 dB/km @1310 nm,
	(ITU-T G.652.D):	0.7 dB/km @1550 nm
	OM3 & OM4 Multimode:	3.5 dB/km @850 nm, 1.5 dB/km @1300 nm
	FLKLZ12:	2.8 dB/km @850 nm, 1.0 dB/km @1300 nm

physical & mechanical properties

Fiber count:	4	6	8	12	24	48	72
Nominal outside diameter (mm):	5.3	5.3	5.8	6.6	8.8	18.3	21.9
Bend radius (Installation/short term/with load):	20x cable outside diameter						
Bend radius (Operation/long term/no load):	10x cable outside diameter						
Weight (kg/km):	25	32	41	53	60	253	381
Tensile strength (Installation/short term), N:	660	660	660	660	1320	1320	1320
Tensile strength (Operation/long term), N:	200	200	200	200	400	400	400
Compressive strength (Crush), N/cm:	1000	1000	1000	1000	1000	1000	1000
Compressive strength for FLKLZ12 (Crush), N/cm:	500/10						
Temperature range:	Storage: -25°C to 70°C Installation: 0°C to 50°C Operation: -20°C to 60°C						
Water penetration:	3m sample, no leakage after 24 hours						

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key features and benefits

900µm tight buffered fibers:	Easy to handle, strip, and connectorize in the field
Flame retardant riser or LSZH jacket:	Provides life safety benefits; meets industry standards for smoke and flame and is well suited for indoor installations
Water swellable elements:	Prevent the migration of water throughout the cable (longitudinally water blocked)
Sub-unit design with central strength member:	Simplifies fiber identification, provides easy access and routing of fibers, increases cable durability
Highest quality OM3 and OM4 laser optimized fiber:	Supports 10 Gb/s applications while maintaining compatibility with existing 50µm multimode systems

fiber color sequence

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua

Fibers 13 through 24 repeat this color sequence and have a Black dash. Fiber 20 is light green with a black tracer.

ordering information

*Example: FLKLZ12 = OM4 12 Fiber Indoor-Outdoor Cable, LSZH, 900µm Tight Buffered Fibers

Character	1	2	3	4	5	6	7
Example*	F	L	K	L	Z	1	2

1 and 2 – Fiber Product, Region

FL = Fiber Cable, Asia Pacific

3 – Cable Construction

K = Indoor-Outdoor Tight Buffered All-Dielectric

4 – Flame Rating

L = LSZH
R = Riser

5 – Fiber Type

9 = Singlemode OS2 9/125µm
X = Multimode OM3 50/125µm
Z = Multimode OM4 50/125µm

6 and 7 – Fiber Count

04 = 4-fiber
06 = 6-fiber
08 = 8-fiber
12 = 12-fiber
24 = 24-fiber
48 = 48-fiber (OS2 only)
72 = 72-fiber (OS2 only)

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