# Opti-Core® 144 to 864-Fiber Indoor-Outdoor Ribbon Cables, OFNR, LSZH and EuroClass



## specifications

Fibers shall be ribbonized for easy mass fusion splicing and termination with 12-fiber MPO style connectors. Cable shall contain 144 to 864 singlemode fibers and have a very small outer diameter. Cable shall be suitable for indoor-outdoor use and be flame rated to comply with riser, low smoke zero halogen, and EuroClass standards. Construction shall be robust, flexible, and all-dielectric.



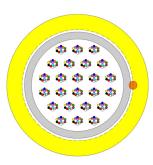
### standards and flame rating

- ✓ Meets all or portions of Telcordia GR-409, ICEA-S-83-696, ICEA-S-104-696, ICEA-S-115-730, and TIA-568
- ✓ ITU G.657.A2/B2

- ✓ UL 1666 (riser), IEC 60332-1-2 (vertical flame), IEC 60754-2 (acid gas), IEC 61034-2 (smoke density), EN 50575 EuroClass CPR (see part description for details)
- ✔ RoHS Compliant

### construction

Flexible Fiber Ribbons:	Twelve color coded fibers are connected to each other intermittently to form a ribbon that is flexible and compactible. The intermittent nature of the bonds allows the fibers to be bunched together when inside the cable. When the outer jacket and core tube are removed, the ribbons naturally open out into color-sequenced flat ribbons that are ready for mass fusion splicing or terminating. Ribbons are sequentially marked for easy identification.
Core Tube:	Crush resistant central core tube is flame retardant and contains twelve to 72 ribbons and water-blocking threads
Strength Members:	Core is surrounded by dielectric strength members
Water-Blocking:	Cable has excellent water-penetration resistance, is gel-free, and contains dry water-blocking threads within the core tube
Sheath:	Yellow jacket is flame retardant and includes one ripcord



Representative Cross-Section (288 count shown)

# key features and benefits

Ribbonized fibers	Allows the installer to splice or terminate twelve fibers at a time; reduced installation time; compatible with MPO connectors and pigtails
Flexible ribbon technology	Allows more fibers to fit in a smaller cable; less material to remove than traditional flat ribbons when fusion splicing or terminating; lighter weight cable
Compact design	Has a smaller diameter and bend radius than non-ribbonized cables; more flexible and easier to install; takes up less space in ladder racks and ducts
Core tube and dielectric strength members	Offers excellent strength, durability, and compression resistance
Flame retardant LSZH/ OFNR/EuroClass materials	Provides life safety benefits and meets industry standards for EMEA, Asia Pacific, and Americas
G.657.A2/B2 singlemode fibers	Delivers high bit rate data transmission and are bend insensitive

## applications

- Suitable for a variety of applications including data centers, colocation facilities, service providers, and central offices
- The indoor-outdoor features of this cable make it an excellent choice for building-to-building cable connections, eliminating the need for intermediate splice transitions from the outdoor environment to indoor use
- Typically installed on ladder rack and used with termination frames. May also be used in ducts.
- 12-fiber ribbons are ideal for mass fusion splicing and MPO multi-fiber connectors

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physical and mechanical properties

Fiber Count	144	288	432	576	864		
Number of Ribbons	12	24	36	48	72		
Cable Diameter, inches (mm)	0.41 (10.5)	0.49 (12.5)	0.61 (15.5)	0.67 (17)	0.77 (19.5)		
Cable Weight, lb/kft (kgm/km)	82 (122)	113 (168)	171 (254)	190 (283)	244 (363)		
Maximum Tensile Rating, lb (N)	600 (2670)	600 (2670)	600 (2670)	600 (2670)	600 (2670)		
Minimum Bend Diameter (long term / no load), inches (mm)	6 (153)	6 (153)	8 (204)	10 (254)	12 (305)		
Minimum Bend Diameter (installation / load), inches (mm)	17 (432)	20 (508)	24.4 (620)	26.8 (681)	30.8 (783)		
Storage Coil Diameter, inches (mm)	17 (432)	20 (508)	24.4 (620)	26.8 (681)	30.8 (783)		
Temperature Range							
Installation	-4°F to +140°F (-20°C to +60°C)						
Operation	-40°F to +158°F (-40°C to +70°C)						
Storage	-40°F to +158°F (-40°C to +70°C)						

optical properties: (singlemode ITU G.657.A2/B2)

Attenuation, max. 1310nm (cabled)	0.4dB/km
Attenuation, max. 1550nm (cabled)	0.3dB/km

ribbon fiber color sequence (TIA-598)

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

# ordering information

Part Number	Description	Unit of Measure
FFCDBX144-28M	OS2 144 Fiber Indoor-Outdoor Cable, OFNR-LSZH CPR Cca-s1a-d0-a1, Flexible Ribbon, MT	Meters
FFCDBX288-28M	OS2 288 Fiber Indoor-Outdoor Cable, OFNR-LSZH CPR Cca-s1a-d0-a1, Flexible Ribbon, MT	Meters
FFCCBX288-24F	OS2 288 Fiber Indoor-Outdoor Cable, LSZH CPR Cca-s1a-d1-a1, Flexible Ribbon, FT	Feet
FFCDBX432-28M	OS2 432 Fiber Indoor-Outdoor Cable, OFNR-LSZH CPR Cca-s1a-d0-a1, Flexible Ribbon, MT	Meters
FFCDBX576-29M	OS2 576 Fiber Indoor-Outdoor Cable, OFNR-LSZH CPR Cca-s1b-d0-a1, Flexible Ribbon, MT	Meters
FFCDBX864-29M	OS2 864 Fiber Indoor-Outdoor Cable, OFNR-LSZH CPR Cca-s1b-d0-a1 Flexible Ribbon, MT	Meters

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