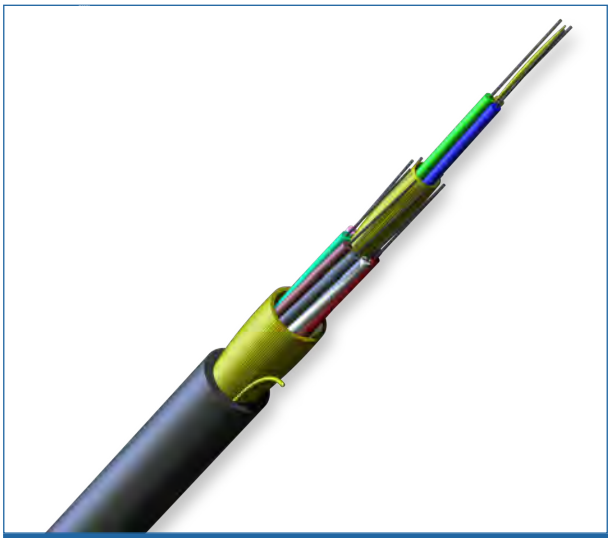
FREEDM® One Tight-Buffered Cable, Plenum

12 F, 50 µm multimode (OM2)

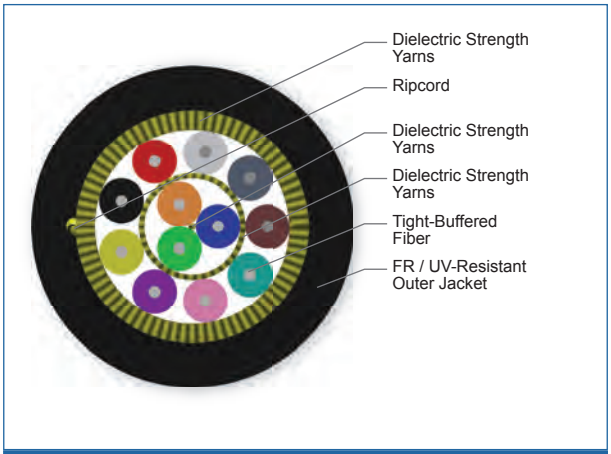
CORNING

Corning Cable Systems FREEDM® One Cables are flame -retardant, UV-resistant, indoor/outdoor cables designed for aerial, duct and direct-buried applications with no need for a transition splice when entering the building. The tight-buffered construction facilitates easier termination for low-fiber-count applications in the local area network (LAN) and eliminates need for fan-out kits. The design features TIA-598 color-coded 900 µm TBII® Buffered Fibers for easy identification, consistent stripping and direct termination. The small diameter and bend radius of the cable allow for easy installation in space-constrained areas while the innovative waterblocking technology is ideal for OSP applications. The all-dielectric cable construction requires no grounding or bonding and the UV-resistant, flame-retardant jacket is rugged, durable and easy to strip.

This cable is available in 12 different jacket colors - blue, orange, green, brown, slate, white, red, black, yellow, purple, rose and aqua. The colored jacket allows for easy visual identification of the cables while still providing all of the required environmental protection of an indoor/outdoor cable jacket. Black is the standard jacket color using the standard part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.



Part Number: 012T8P-31131-29



Cross Section of Part Number: 012T8P-31131-29

Features and Benefits

Waterblocking technology
OSP (outdoor) applications

Small diameter and bend-radius
Easy installation in space-constrained areas

Color-coded fibers
Quick and easy identification

All-dielectric construction
Requires no grounding or bonding

UV-resistant, flame-retardant jacket
Rugged, durable and easy to strip

Standards

Approval and Listings	National Electrical Code® (NEC®) OFNP, CSA FT-6
Design and Test Criteria	ICEA S-104-696

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Specifications

General Specifications	
Environment	Indoor/Outdoor Cables
Application	Aerial, Direct Buried, Duct, General Purpose Horizontal, (Vertical Riser, Plenum)
Cable Type	Tight-Buffered
Product Type	Dielectric
Flame Rating	Plenum (OFNP)
Fiber Category	50 µm MM (OM2)

Temperature Range	
Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Installation	0 °C to 60 °C (32 °F to 140 °F)
Operation	-40 °C to 70 °C (-40 °F to 158 °F)

Cable Design	
Central Element	Dielectric
Fiber Count	12
Tight Buffer Color	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Tensile Strength Elements and/or Armoring - Layer 1	Water-swellable strength members
Outer Jacket Material	Flame-Retardant, UV-Resistant
Outer Jacket Color	Black

Mechanical Characteristics Cable	
Weight	37 kg/km (25 lb/1000 ft)
Nominal Outer Diameter	6.3 mm (.25 in)
Min. Bend Radius Installation	95 mm (3.7 in)
Min. Bend Radius Operation	32 mm (1.2 in)
Max. Tensile Strengths, Short-Term	675 N (150 lbf)
Max. Tensile Strengths, Long-Term	200 N (45 lbf)

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Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2002/95/EG

Fiber Specifications

Optical Characteristics (cabled)	
Fiber Type	Multimode
Fiber Core Diameter	50 µm
Fiber Category	OM2
Fiber Code	T
Performance Option Code	31
Wavelengths	850 nm / 1300 nm
Maximum Attenuation	2.8 dB/km / 1 dB/km
Min. Overfilled Launch (OFL) Bandwidth	700 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	950 MHz*km / -
Serial 1 Gigabit Ethernet	750 m / 600 m
Serial 10 Gigabit Ethernet	150 m / -

Notes:
1) *50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.*
2) Improved attenuation and bandwidth options available.
3) Bend-insensitive single-mode fibers available on request.
4) *Contact a Corning Cable Systems Customer Care Representative for additional information.*

Ordering Information

Part Number	012T8P-31131-29
Product Description	FREEDM® One Tight-Buffered Cable, Plenum, 12 F, 50 µm multimode (OM2)

RoHS COMPLIANT

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