

Communication Markets Division

3M™ Clear Fiber Drop Cable

3M™ Clear Fiber Drop Cable is a specially designed all dielectric cable for FTTH use. Because of its easy fiber access design, this unique cable can be transitioned from outdoor to indoors without the need for a splice or connection point.

A single 900 µm clear buffered ultra bend insensitive optical fiber (ITU-T G657.B3) is contained within the jacketed fiber drop, meeting the 5 mm bend radius requirement. Two parallel Fiber Reinforced Polymer (FRP) strength members are placed on the two sides of the fiber in the cable. Cable jacket dimensions are 2.5 × 4.0 mm.

When installing the cable indoors, the two sides of the cable are easily peeled back exposing the 900 µm clear buffered fiber. The clear buffered fiber is then inconspicuously laid into the 3M™ Clear Track Fiber Pathway and routed to the homeowner's network terminal or wall outlet. The fiber can be easily terminated with 3M™ field-installable connectors.



3M™ Clear Fiber Drop Cable

Features	Benefits
Small profile for outdoor and indoor	Less visible, resulting in an aesthetically pleasing look for both building owners and homeowners
Easy access cable design	Peels apart with minimal tools, exposing the clear fiber inside
Can be stapled on outside walls	Ruggedized design and less installation time needed
Field-termination friendly	Direct attachment of cable jacket to connector for easy access and termination of internal 900 µm fiber without dealing with aramid yarn
Low thermal shrink/expansion construction	Stable performance throughout temperature extremes
OFNR/FTA (riser rated)	Enables entry into basements/attics before transitioning to living space
All-dielectric	Eliminates the need for bonding or grounding
Factory-terminated Clear Drop Cable versions are also available	Further simplify pathway installation with unique plug-and-play connectorization designs

3M™ Clear Fiber Drop Cable (Unterminated, indoor/outdoor)

3M™ Clear Fiber Drop Cable maximizes indoor/outdoor drop cable flexibility in FTTH deployment by eliminating slack storage, removing the need for a splice point, and allowing different connectivity choices, including field mount connectors like 3M™ No Polish Connectors (NPC) and 3M™ Crimplok™+ Connectors. The cable, available in 2500 ft spool, is extruded with all-dielectric OFNR materials and factory filled with clear buffer 900 μm ultra bend insensitive fiber, which is more craft friendly than traditional 250 μm fiber inside typical drop cable. Along with 3M™ Clear Track Fiber Pathway, the pathway solution is ideal for Single Family Units as well as garden-style homes serviced by FTTH networks.



3M™ Clear Fiber Drop Cable
(Unterminated, indoor/outdoor)

3M™ Clear Fiber Drop Patch Cord (factory terminated, indoor/outdoor)

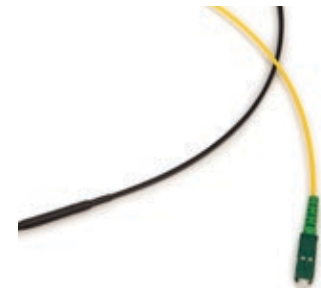
3M™ Clear Fiber Drop Cable is also available as factory-terminated patch cords with SC/APC connectors on both ends. The outdoor end of the 3M™ Clear Fiber Drop Patch Cord has a SC/APC connector and the fiber is transitioned to round 3 mm jacketed cable, which can be conveniently looped inside a Network Interface Device (NID).



3M™ Clear Fiber Drop Patch Cord

The indoor end of the 3M Clear Fiber Drop Patch Cord has a SC/APC connector inside a pulling sock, which provides great protection through the wall. The SC/APC connector is then plugged into the wall outlet or ONT.

Along with 3M Clear Track Fiber Pathway, 3M Clear Fiber Drop Cable enables both convenient and efficient fiber pathway installation from outside the single family home to inside the living area.



Outside end of 3M™ Clear Fiber Drop
Patch Cord



Inside end of 3M™ Clear Fiber Drop
Patch Cord with pulling sock

3M™ Clear Fiber Drop Cable Specifications	
Application	Outdoor/indoor use Not recommended for aerial spans or below grade conduits; Can be pulled into 7.0 mm conduit
Fiber type	Singlemode (ultra bend insensitive ITU-T G657.B3)
Fiber count	One fiber with 900 µm buffer
Jacket color/fiber color	Black/clear
Jacket/Tight buffer fiber material	LSZH Resin/PVC with low friction characteristic
Standards	Meets Telcordia GR-20 and ICEA-S-110-717 fiber drop cable requirements OFNR/ FT 4 (riser rated), Indoor/Outdoor rated
Operating temperature range	-40°C to 70°C (-40°F to 158°F)
Mechanical Nominal outer dimensions	2.5 mm x 4 mm
Cable bend radius Dynamic/static	50 mm / 25 mm (2.0" / 1.0")
Cable weight	10 Kg/km (6.7lbs/kft)
Certifications	The 3M™ Clear Fiber Drop Cable has been listed to the requirements of UL 1685 OFNR-LS. The 3M Clear Fiber Drop has been listed to CSA-C22.2 No. 2556 OFNR-FT4-ST1.
Impact test	Standard - ICEA-717 (7.22); Test method- FOTP-25; Passed <0.4dB SM loss with two 2.94 Nm impacts
Cold Impact test -10C	Standard - ICEA-717 (7.23); Test method- FOTP-25; Passed two impacts of 2.94 Nm at 3 locations
T25 Staple test	Standard Verizon TPR-9424; passed with 20 staples, attenuation @1550 nm <0.1 dB
Indoor 900 µm fiber	UV resistance conformant to 720h ASTM G-155 Cycle 1.
Outdoor cable jacket	UV resistance conformant to 4000h ASTM G-155 Cycle 1.

3M™ 900 µm Clear Fiber Specifications

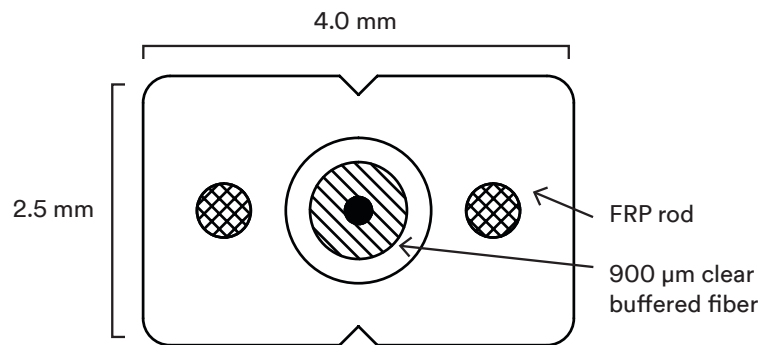
Product Type		
Tight buffer coating type Ultra bend insensitive single mode fiber	900 µm Clear PVC, proof tested to 200 kpsi ITU-T G.657.B3, G.652.D	
Optical Specifications		
Attenuation Attenuation at 1310 nm Attenuation at 1490 nm Attenuation at 1550 nm Attenuation at 1625 nm	≤ 0.35 dB / km ≤ 0.25 dB / km ≤ 0.22 dB / km ≤ 0.24 dB / km	
Attenuation with Bending Number of Turns Mandrel Radius Wavelength Induced Attenuation	1 5.0 mm 1550 nm ≤ 0.15 dB	1 5.0 mm 1625 nm ≤ 0.45 dB
Cutoff Wavelength (ccf)	≤ 1260 nm	
Mode Field Diameter (MFD) Wavelength (nm) MFD (µm)	1310 nm 8.8 +/- 0.4	1550 nm 9.8 +/- 0.5
Geometrical Specifications		
Glass cladding diameter Glass core / cladding concentricity error Glass core / cladding non-circularity Buffer diameter Coating diameter	125.0 +/- 0.4 µm ≤ 0.3 µm ≤ 0.3 % 0.9 +/- 0.05 mm 242 +/- 5 µm	

Ordering Information

Product Number	Description	3M ID	Min. Order
CLR-DRP-025-01-SCA2-BL	3M™ Clear Fiber Drop Patch Cord, single fiber, SC/APC - SC/APC, 25 feet, black	80-6114-8841-4	20 each
CLR-DRP-050-01-SCA2-BL	3M™ Clear Fiber Drop Patch Cord, single fiber, SC/APC - SC/APC, 50 feet, black	80-6114-8792-9	20 each
CLR-DRP-075-01-SCA2-BL	3M™ Clear Fiber Drop Patch Cord, single fiber, SC/APC - SC/APC, 75 feet, black	80-6114-8842-2	20 each
CLR-DRP-100-01-SCA2-BL	3M™ Clear Fiber Drop Patch Cord, single fiber, SC/APC - SC/APC, 100 feet, black	80-6114-8793-7	20 each
CLR-DRP-2500-01-000-BL	3M™ Clear Fiber Drop Cable, single fiber, no termination, 2,500 feet, black	80-6114-9806-6	1 spool
CLR-DRP-PUSH-100	3M™ Clear Drop Push Tubes 100pcs/pack	80-6114-8839-8	1 pack
CLR-TRK-KIT	3M Clear Track Fiber Pathway with 3M Belt Clip Spool Holder, 3M Clear Fiber Drop Cable, Accessories and Tools	80-6114-9811-6	1 kit



Isometric view of 3M™ Clear Fiber Drop Cable



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