

Flat FTTH Bend Insensitive Fiber Optic Cable

Outdoor FTTH 2 and 4 Cores Drop Fiber Optic Cable

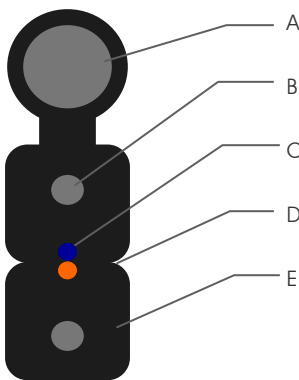
Infinique’s Outdoor Flat FTTH Drop Cable is used in high speed and broadband application and are uniquely designed for rugged outdoor and challenging indoor environments. The design features a gel-free, fully water blocked, UV Resistant, Flame Retardant LSOH rugged cable. The cable construction comprises of supporting steel wire which makes it suitable for aerial installation and the two parallel FRP strength members provides superior tensile strength to the cable.

These light weight cables are suitable for direct installations in multi dwelling units due to their excellent crush and impact resistance properties. The performance of the cable complies and exceeds the requirements for Optical Fiber Drop Cable for FTTH Standards.

Features and Benefits

- Reliable Performance**
 Zero Bend Loss with Bend Insensitive G.657A1 Fiber for uninterrupted 10 G Ethernet Performance
- Superior Tensile Strength**
 Dual FRP with UV Resistant, Flame Rated PE Jacket for greater crush resistance
- Compact Flexible Cable**
 Suitable for aerial, duct, riser, plenum and can be installed in both indoor and outdoor applications
- Challenging Applications**
 With zero bend radius easy installation in space constraint areas

CABLE CONSTRUCTION



Legend	Cable Component
A	Supporting Steel Wire
B	FRP Strength Member
C	Optical Fiber
D	Notch to Pick
E	OFCR UL Listed Flame Retardant LSOH Jacket



OPTICAL SPECIFICATIONS

Fiber Type	Singlemode Bend Insensitive	
IEC 11801 classification	OS2	
ITU-T type	G.657A1	
Attenuation (dB/km max)	1310 nm	≤ 0.35
	1550 nm	≤ 0.20
	1625 nm	≤ 0.23
Macro Bend Loss 1 turn with Mandrel Radius of 5 mm	1550 nm	≤ 0.10 dB
	1625 nm	≤ 0.30 dB
Chromatic Dispersion (ps/(nm*km))	1550 nm	≤ 18.0
	1625 nm	≤ 23.0
Zero Dispersion Wavelength (nm)	≤ 1324	
Zero Dispersion Slope (ps/(nm ² *km))	≤ 0.092	
Polarization Mode Dispersion (PMD) (ps/km)	PMD Link Design Value	≤ 0.06
	Maximum Fiber PMD	≤ 0.2
Proof Stress Level	0.69 GPa	100 kpsi, 1%

GEOMETRICAL SPECIFICATIONS

Core Diameter (µm)		9±2.5
Cladding Diameter (µm)		125 ±1.0
Coating Diameter (µm)		245 ±10

APPLICABLE DISTANCES

Gigabit Ethernet Distance (m)	Sx (850 nm)	10,000
	Lx (1310 nm)	40,000
10 Gigabit Ethernet Distance (m)	Sx (850 nm)	10,000
	Lx (1310 nm)	40,000

These are the applicable distances at given frequencies, distances increase for lower frequencies.

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GENERAL SPECIFICATIONS

Environment	Outdoor and Indoor
Applications	Aerial, Duct, Riser, Plenum
Cable Type	FTTX Drop Cable

CABLE CONSTRUCTION

Optical Fibers	2 Fibers, Corning Singlemode OS2 Zero Water Peak Fiber G.657.A1
Fiber Color	Blue, Orange
Core Diameter (µm)	9±2.5
Cladding Diameter (µm)	125 ± 1.0
Coating Diameter (µm)	245 ± 10
Dielectric Strength Member	2 Nos. Fiber Reinforced Plastic (FRP) Φ 0.5 mm
Steel Supporting Wire	1 No. Φ 1.0 mm
Cable Jacket	UV Resistant, OFCR Flame Retardant, PE Jacket
Cable Jacket Color	Black
Cable Outer Diameter	Nominal 2.0mm x 5.0mm
Cable Weight	17kg / km

TEMPERATURE RANGE

Installation and Assembly	-20°C ~ +70°C
Operating Temperature	-20°C ~ +70°C
Storage Temperature	-20°C ~ +70°C

STANDARDS

Performance	TIA 568, ISO/IEC11801, EN 50173-X, ICEA-696 Compliant Meet or exceeds IEE 802.3 Ethernet (including 10 Gigabit Ethernet), ATM, Fibre Channel, FDDI
Water Blocking	IEC 60794-1-2 F5 Standards
Color Coding	IEC 60304 Telcordia-Bellcore Standards
Flame Retardant	IEC 60332-3-24 Standards
Flame Propagation	IEC 60332-1 Standards

TEST DATA

Test	Standard	Specified Value	Acceptance Criteria
Tension	IEC 60794-1-E1	Mandrel Diameter: 30 x Cable OD Length under tension: 50 m Applied tensile load: 150 N Duration: 5 minutes	PASS Attenuation change <= 0.05 dB No splitting or cracking in jacket No fiber breakage
Crush Performance	IEC 60794-1-E3	Applied load: 100kg/100mm Duration of loading: 5 minutes	PASS Attenuation change <= 0.05 dB The optical fiber shall have no distinct additional attenuation and strain.
Impact Resistance	IEC 60794-1-E4	Height of impact: 1000mm Drop hammer mass: 1kg No. of impact : 10 point	PASS Attenuation change <= 0.05 dB The optical fiber shall have no distinct additional attenuation and strain.
Bending Radius	IEC 60794-1-E6	Sheave Diameter: 20 x Cable OD No. of Flexing Cycles: 25 Cycles Flexing Speed: 2 seconds/Cycle	PASS Attenuation change <= 0.05 dB The optical fiber shall have no distinct additional attenuation and strain.
Torsion Test	IEC 60794-1-E7	Length: 2 meters Load: 5 Kg Cycles:10	PASS The optical fiber shall have no distinct additional attenuation and strain.
Temperature Performance	IEC 60794-1-F1	Temperature cycling schedule 25°C→ -10°C→ 60°C→ -10°C→ 60°C→ 25°C Soak time at each temperature: 8hours	PASS Attenuation change <= 0.05 dB /km

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METER MARKING

Cable Jacket shall be marked with black ink font at intervals of one meter with the following information.

Example Marking: Infinique Canada Outdoor FTTH Cable IFOCSMFO2, Singlemode G.657A1, 2C, Flame Retardant, PE FFF8002YMM XXXXXM

- 1) Manufacturer's name
- 2) Cable Type
- 3) Model Number
- 4) Fiber Type
- 5) Fiber Count
- 6) Jacket Type
- 7) Serial Number
- 8) Running Length in Meter

PACKING

Standard Packing Reel of 2KM each. Custom cable length available.

Each length of the cable shall be wound on wooden reel.

Cable ends sealed with plastic tape to prevent the entry of moisture during shipping, handling and storage.

Multiple wooden reels packed on wooden pallets and fastened securely suitable for both air and sea shipments.

TEST REPORT

Test Report for each reel is pasted on the Packing Reel. All Test Reports are archived for future reference.

ROHS

FTTH Cable meets RoHS Standards

ORDERING INFORMATION

Part Number	Description
IFOCSMFO2	Infinique Canada Outdoor FTTH Cable, Singlemode G.657A1, 2Core, Flame Retardant, PE Jacket
IFOCSMFO4	Infinique Canada Outdoor FTTH Cable, Singlemode G.657A1, 4Core, Flame Retardant, PE Jacket



Infinique, a Canadian company is a manufacturer of high performing end-to-end solutions in copper, fiber and video surveillance systems. For more information visit our website at www.infinique.com or email us at sales@infinique.com.