Flat FTTH Bend Insensitive Fiber Optic Cable

Indoor FTTH 2 and 4 Cores Drop Fiber Optic Cable

Infinique's Indoor Flat FTTH Drop Cable is used in high speed and broadband telecommunication application and is suitable for indoor applications. The indoor fiber construction comprises of two or four colored optical fibers, 2 parallel GSW (Galvanized Steel Wire) strength members and LSZH Jacket. These light weight cables are suitable for direct installations in multi dwelling units due to their excellent crush and impact resistance properties.

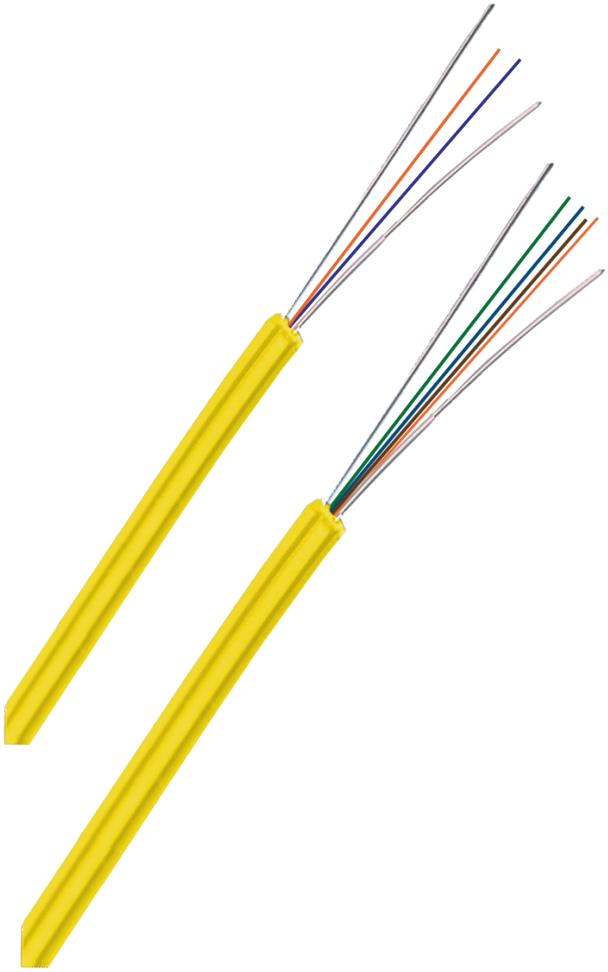
ITU-T G.657A2 fibers are used in the construction of FTTH cable which have higher bend resistance, greater resistance to macro bending losses and are ideal for FTTH installations. The performance of the cable complies and exceeds the requirements for Optical Fiber Drop Cable for FTTX Standards.

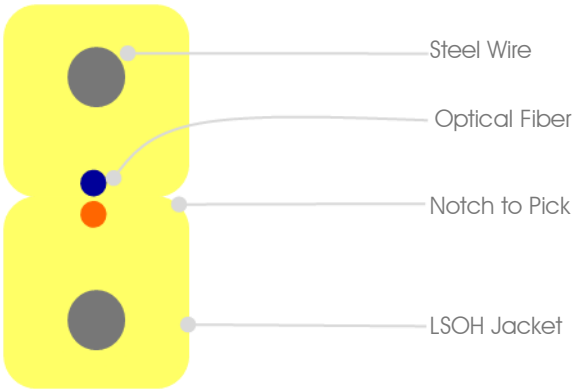
Infinique's Indoor FTTH Cable is available in 2 and 4 cores configuration.

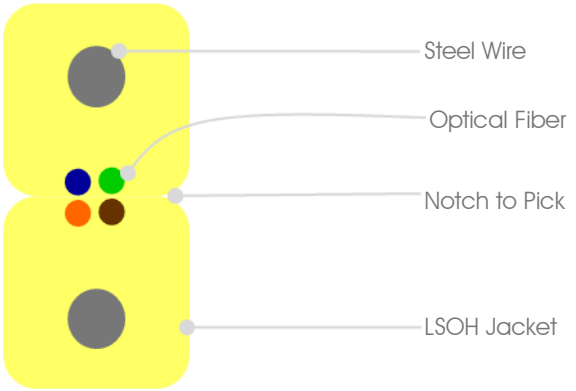
Features and Benefits

- **Reliable Performance**
  Zero Bend Loss with Bend Insensitive ITU-T G.657A2 Optical Fiber for uninterrupted 10 G Ethernet Performance
- **Cable Construction**
  Grounding or Bonding are not required, Dual GSW with Flame Rated LSOH Jacket for safety and greater crush resistance
- **Clear Identification**
  Color coded Tubes, Colored Outer Jacket
- **Challenging Applications**
  With zero bend radius easy installation in space constraint areas

CABLE CONSTRUCTION







LINK PERFORMANCE WARRANTY 25 Years

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OPTICAL SPECIFICATIONS		
Fiber Type		Singlemode Bend Insensitive
IEC 11801 classification		OS2
ITU-T type		G.657A2
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.		

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/50mm 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: 500mm Drop hammer mass: 0.5kg No. of impact : 5 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 × 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℃→ -10℃→ 60℃→ -10℃→ 60℃→ 25℃ Soak time at each temperature: 8hours	PASS Attenuation change <= 0.05 dB /km

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GENERAL SPECIFICATIONS	
Environment	Indoor
Applications	Duct, Riser, Plenum
Cable Type	FTTX Drop Cable
CABLE CONSTRUCTION	
Optical Fibers	2 or 4 Fibers, Singlemode Fiber G.657.A2
Fiber Color	1-Blue, 2-Orange, 3-Green, 4-Brown
Core Diameter (μm)	9±2.5
Cladding Diameter (μm)	125 ±1.0
Coating Diameter (μm)	245 ±10
Dielectric Strength Member	2 Nos. Galvanized Steel Wire (GSW) Φ 0.4 mm
Cable Jacket	Flame Retardant LSOH Jacket
Cable Jacket Color	Yellow, RAL 1023
Cable Outer Diameter	Nominal 2.0mm x 3.0mm
Cable Weight	10kg / km
TEMPERATURE RANGE	
Installation and Assembly	-30°C ~ 70°C
Operating Temperature	-30°C~+70°C
Storage Temperature	-30°C~+70°C
STANDARDS	
Performance	TIA 568, ISO/IEC11801, EN 50173-X, ICEA-696 Compliant Meet or exceeds IEEE 802.3 Ethernet (including 10 Gigabit Ethernet), GPON, 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
Flame Retardant / LSOH Emissions / Non-Corrosive	IEC 60332-1 and EN 50266-2-1 / IEC 61034 and EN 50268 / IEC 60754-2 and EN 50267

METER MARKING

Cable Jacket shall be marked with black ink font at intervals of one meter with the following information.
Infinique Canada Indoor FTTH Cable IFOCSMFG4, Singlemode G.657A2, 4C, Flame Retardant, LSOH SN:(Batch Number) XXXXM

PACKING

Standard Packing Reel of 1KM each. Custom cable length available.
Each length of the cable shall be wound on plastic reel and packed in carton.
Multiple cartons 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
IFOCSMFG2	Infinique Indoor FTTH Cable, Singlemode G.657.A2, 2Core, GSW Strength Member, LSOH
IFOCSMFG4	Infinique Indoor FTTH Cable, Singlemode G.657.A2, 4Core, GSW Strength Member, LSOH

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