Distribution Tight Buffer Multimode Cable

Distribution Cable 2-24 Fibers, Indoor/Outdoor, Non-Jelly

Infinique's Distribution Tight Buffer Cables are suitable for indoor and outdoor applications. They are designed not just to save space and time but also to further simplify fiber management by eliminating the need for splicing the cables before entering buildings.

Being extremely flexible and metal-free, these cables are ideal for low fiber count applications such as duct, and riser indoor spaces. Multimode cables are available in OM1, OM2, OM3 and OM4 configurations.

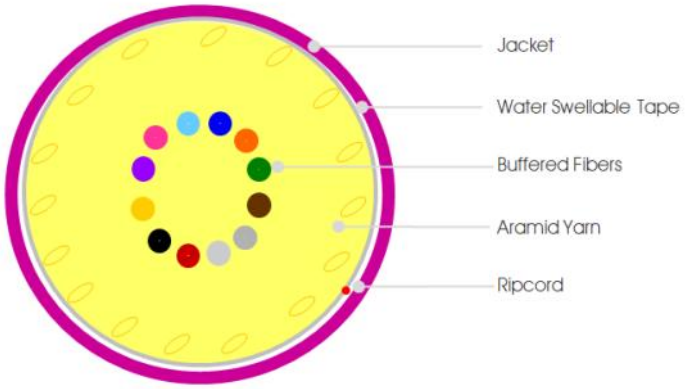
To ensure water ingress, water blocking tape is applied and aramid yarn is longitudinally applied around the tight buffered fibers and then is enclosed in a protective outer jacket. Rip Cords are applied longitudinally to enable easy stripping of the cable during end preparation for testing and installation. For speedy installation and clear identification, the buffered fibers are distribution cable color coded in accordance with Telecordia standards. The outer jacket of the OM1 and OM2 is orange, OM3 is aqua and OM4 cable is violet. The cable is clearly meter marked with durable black ink. The cable can be custom made ranging from 2 to 24 fibers, and is suitable for Gigabit Ethernet and 10 Gigabit Ethernet Applications. The cable is UL Certified for OFNR standard ratings.

Features and Benefits

- **Reliable Performance**
  Gigabit Ethernet and 10 Gigabit Ethernet Performance
- **Rugged Construction**
  OFNR UL Certified, Aramid Yarn for high tensile strength, extremely flexible, metal free, greater crush resistance, and water ingress protection
- **Clear Identification**
  Color coded Tubes, Fiber and Outer Jacket
- **Speedy Installation**
  Simple fiber management and Ripcords for easy stripping
- **Challenging Applications**
  Duct, Riser and other challenging conditions

Both ends of the cable are capped to avoid water ingress and are accessible for testing. Cable is packed in fumigated wooden drums with angle rod support to take the cable load. All cable drums are accompanied with individual cable test report.

CABLE CONSTRUCTION



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OPTICAL SPECIFICATIONS

Fiber Type		Multimode 62.5/125	Multimode 50/125	Multimode 50/125 LOF	Multimode 50/125 LOF
IEC 11801 classification		OM1	OM2	OM3	OM4
ITU-T type		G.651	G.651	G.651	G.651
Attenuation (dB/km max)	850 nm	≤ 3.5	≤ 2.8	≤ 2.8	≤ 2.8
	1310 nm	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0
	1550 nm				
	1625 nm				
Bending Loss 1 turn Radius 20× Cable OD	850 nm-1310	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05
	1550 nm				
	1625 nm				
Bandwidth MHz x km	850 nm	≥ 160	≥ 500	≥ 2000	≥ 3500
	1310 nm	≥ 500	≥ 500	≥ 1200	≥ 1200
Chromatic Dispersion (ps/(nm*km))	1285-1330 nm				
	1550 nm				
	1625 nm				
Zero Dispersion Wavelength (nm)					
Zero Dispersion Slope (ps/(nm^{2}km))					

GEOMETRICAL SPECIFICATIONS

Core Diameter (µm)		62.5±2.5	50±2.5	50±2.5	50±2.5
Cladding Diameter (µm)		125 ±1.0	125 ±1.0	125 ±1.0	125 ±1.0
Coating Diameter (µm)		245 ±10	245 ±10	245 ±10	245 ±10

APPLICABLE DISTANCES

Gigabit Ethernet Distance (m)	Sx (850 nm)	300	750	1000	1100
	Lx (1310 nm)	550	600	600	600
10 Gigabit Ethernet Distance (m)	Sx (850 nm)	33	150	300	550
	Lx (1310 nm)				

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

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
Differential Mode Delay (DMD)	IEC 60793-1-49 To measure Effective Modal Bandwidth (EMB)
Water Blocking	IEC 60794-1-2 F5 Standards
Color Coding	IEC 60304 Telcordia-Bellcore, TIA-598C 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

TEST DATA

Test	Standard	Specified Value	Acceptance Criteria
Tension	IEC 60794-1-2-E1	Mandrel Diameter: 30 x Cable OD Length under tension: ≥ 50 m Applied tensile load: 1500 N Duration: 5 minutes	PASS Attenuation change <= 0.05 dB The optical fiber shall have no distinct additional attenuation and strain.
Crush Performance	IEC 60794-1-2-E3	Applied load: 500N/85mm 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 60794-1-2-E4	Height of impact: 0.5m Drop hammer mass: 0.5kg No. of impacts: 1	PASS Attenuation change <= 0.05 dB The optical fiber shall have no distinct additional attenuation and strain.
Bending Radius	IEC 60794-1-2-E11	Length: ≥ 10m Mandrel : 10 × Cable OD	PASS Attenuation change <= 0.05 dB The optical fiber shall have no distinct additional attenuation and strain.
Repeated Bending	IEC 60794-1-2-E6	Sheave Diameter: 15 x Cable OD Applied Load : 0.5kg No. of Flexing Cycles: 5 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 No. of Flexing Cycles: 5 Cycles Twist Angle: ±180° , Applied Load: 0.5kg	PASS Attenuation change <= 0.05 dB /km The jacket has no cracking and no breakage of optical fiber
Temperature Performance	IEC 60794-1-2-F1	Temperature cycling schedule 25°C→ -40°C→ 70°C→ -40°C→ 70°C→ 25°C Soak time at each temperature: 8hours	PASS Attenuation change <= 0.05 dB /km
Water Penetration	IEC 60794-1-2-F5B	Length: 1 meter Water Height: 1m Test Time: 24 hrs	PASS No water leakage through the open cable end.

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GENERAL SPECIFICATIONS	
Environment	Indoor, Outdoor
Applications	Aerial, Duct, Riser, UV Resistant, Flame Retardant, Fire Rated
Cable Type	Distribution Cable (OFNR)
CABLE CONSTRUCTION	
Cable Strength Members	Aramid Yarn
Optical Fibers	UV Colored High Grade Silica Glass Surrounded by Acrylate Coating
Fiber Count	2~24
Buffered Fibers Color	1-Blue, 2-Orange, 3-Green, 4-Brown, 5-Grey, 6-White, 7-Red, 8-Black, 9-Yellow, 10-Violet, 11-Pink, 12-Aqua, 13–Blue with Black Tracker, 14-Orange with Black Tracker, 15-Green with Black Tracker, 16-Brown with Black Tracker, 17-Grey with Black Tracker, 18-White with Black Tracker, 19-Red with Black Tracker, 20-Black with Yellow Tracker, 21-Yellow with Black Tracker, 22-Violet with Black Tracker, 23-Pink with Black Tracker, 24-Aqua with Black Tracker
Moisture Protection	Water Swellable Yarn, Water Swellable Tape
Number of Ripcords	1
Cable Outer Jacket Color	Multimode OM1: Orange, RAL 2004; Multimode OM2: Orange, RAL 2004; Multimode OM3, Aqua RAL 6027, OM4: Violet RAL 4003
Cable Outer Jacket	PVC, LSOH, OFNP, OFNR, Thickness: 1.0 ±0.0.3mm, Φ 6.5 ±0.3㎜
Cable Marking	Infinique Canada Distribution Tight Buffer Cable Model Number UL Listed SN:NNNXXXX-YYMM XXXXXM
TEMPERATURE RANGE	
Installation and Assembly	-10°C to 60°C (14 °F to 140 °F)
Operation	-40°C to 70°C (-40 °F to 158 °F)
Storage	-40°C to 70°C (-40 °F to 158 °F)

MECHANICAL SPECIFICATIONS

Fiber Count	Nominal OD (mm)	Min Bend Radius (mm)	Tensile (N)	Nominal Wt. (kg/km)	Max Drum Length (m)
2	6.5 ±0.3mm	60	1500	20	4500
4	6.5 ±0.3mm	60	1500	24	4500
6	6.5 ±0.3mm	60	1500	28	4500
8	6.5 ±0.3mm	60	1500	32	4500
12	6.5 ±0.3mm	60	1500	36	4500
16	6.5 ±0.3mm	60	1500	40	4500
18	6.5 ±0.3mm	60	1500	44	4500
24	6.5 ±0.3mm	60	1500	48	4500

ORDERING INFORMATION

Part Number	Description
IFOCM1TBN	Infinique Distribution Tight Buffer Non-Jelly Multimode OM1, UL Listed OFNR Cable
IFOCM1TBNL	Infinique Distribution Tight Buffer Non-Jelly Multimode OM1, UL Listed OFNR Cable
IFOCM2TBN	Infinique Distribution Tight Buffer Non-Jelly Multimode OM2, UL Listed OFNR Cable
IFOCM2TBNL	Infinique Distribution Tight Buffer Non-Jelly Multimode OM2, UL Listed OFNR Cable
IFOCM3TBN	Infinique Distribution Tight Buffer Non-Jelly Multimode OM3, UL Listed OFNR Cable
IFOCM3TBNL	Infinique Distribution Tight Buffer Non-Jelly Multimode OM3, UL Listed OFNR Cable
IFOCM4TBN	Infinique Distribution Tight Buffer Non-Jelly Multimode OM4, UL Listed OFNR Cable
IFOCM4TBNL	Infinique Distribution Tight Buffer Non-Jelly Multimode OM4, UL Listed OFNR Cable
Number of Cores: Replace 'N' in Part Number for the number of Fiber Cores (2 to 24 Cores).	

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.