



# OPTICAL FIBRE

C A B L E S

**CONTRIBUTING TO DIGITAL INDIA**

# CONTENTS

Single Tube Unarmoured Cable	1
Multi - Tube Single Sheath Unarmoured Cable	2
Multi - Tube Ribbon Type Unarmoured Cable	3
Single Tube Armoured Cable	4
Multi - Tube Single Sheath Armoured Cable	5
Multi - Tube Double Sheath Armoured Cable	6
All Dielectric Self Supporting Aerial (ADSS) Cable	7
Fig- "8" Aerial Cables (2-144 F)	8
FTTH Cable (2F) and Drop Cable (2 to 6F)	9
Outdoor Fo Cable (2-8 F)	10
Tactical Cable	11
Hybrid Cable	12
General Instructions	13

# OUTDOOR CABLES (2-12F)

## Applications

Inside Duct, Pulled or Blown  
For CATV applicaton, aerial applicaton  
along with messenger wire

## Cable Construction

Up to 12 low water peak single mode fibres in compliance  
with ITU-T-G.652D  
Metallic / Non metallic rod used as strength member  
embedded in sheath  
Loose buffer tubes jelly filled and centrally placed in the  
cable  
UV stabilized PE outer sheath, black

## Mechanical Characteristics

Temperature Range	(IEC 60794-1-2-F1)
Laying & Installation	-10°C to +50°C
Operation	-20°C to +60°C

## Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation	20D, D=Cable Diameter
Installed	15D, D=Cable Diameter
Repeated Bending	30 Cycle, r=20D, 5 Kg, Load, D=Cable Diameter

(IEC 60794-1-2-E6)

## Tensile Force (IEC 60794-1-2-E1)

During Installation	800 N
Installed	500 N
Torsion Resistance (IEC 60794-1-2-E7)	10 Cycle ( $\pm 360^\circ$ ) 5 Kg weight, L=1 Mtr
Crush Resistance (IEC 60794-1-2-E3)	500 N (100 X 100 mm) for 60 sec
Kink Resistance (IEC 60794-1-2-E10)	15D, D=Cable Diameter
Water Penetration (IEC 60794-1-2-F5B)	1 Mtr Water Head, 3 Mtr Cable Sample, 24 Hours

## Variants\*

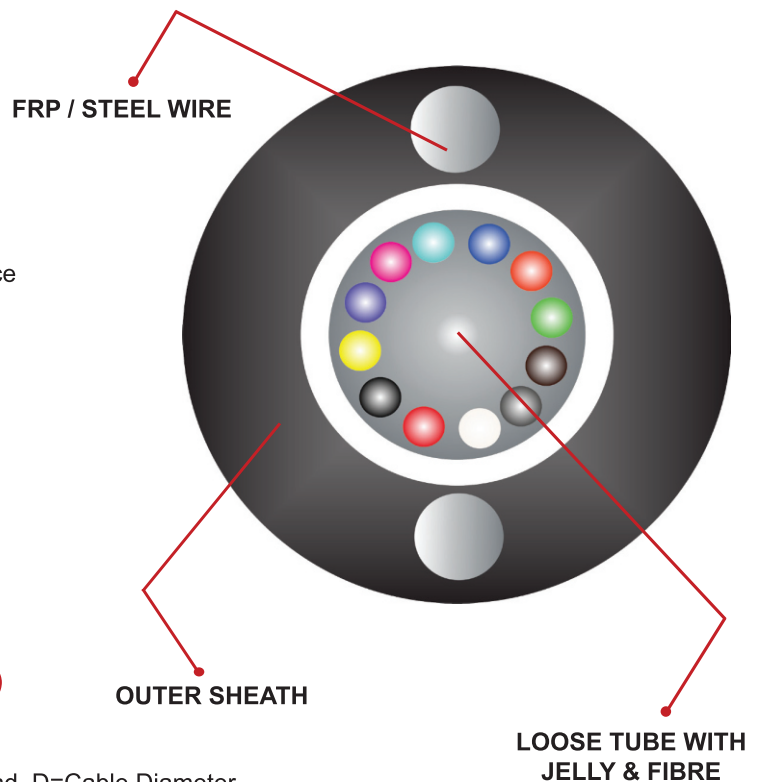
\*Cable can be supplied with single mode (ITU-T-G652, G655, and G657)

& Multimode (50 $\mu$ m & 62.5 $\mu$ m)

\*Outer Jacket can be of PVC~LSZH, and HOPE

\*Strength member can be Steel or FRP

\*These are general characteristics; customized designs are available as per requirements



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
2 to 8	6.0	30	800	500
12	6.5	35	800	500

# OUTDOOR CABLES (2-144 F)

## Applications

Inside Duct, Pulled or Blown

## Cable Construction

Up to 144 low water peak single mode fibres in compliance with ITU-T-G.652D  
Metallic / Non metallic element used as central strength Member for Tensile Strength  
Loose buffer tubes jelly filled  
Loose buffer tubes S-Z Stranded  
Cable core filled with jelly  
S-Z core wrapped with polyester tape  
UV stabilized PE outer sheath, black

## Special Features

Flexible buffer tubes provide easy fiber routing inside closure  
Lighter weight cable for fast and easy installation

## Mechanical Characteristics

Temperature Range (IEC 60794-1-2-F1)

Laying & Installation

Operation

-10°C to +50°C

-20°C to +60°C

## Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation

Installed

Repeated Bending

(IEC 60794-1-2-E6)

20D, D=Cable Diameter

15D, D=Cable Diameter

30 Cycle, r=20D, 5 Kg

Load, D=Cable Diameter

## Tensile Force (IEC 60794-1-2-E1)

During Installation

Installed

Torsion Resistance (IEC 60794-1-2-E7)

Crush Resistance (IEC 60794-1-2-E3)

Kink Resistance (IEC 60794-1-2-E10)

1800 N

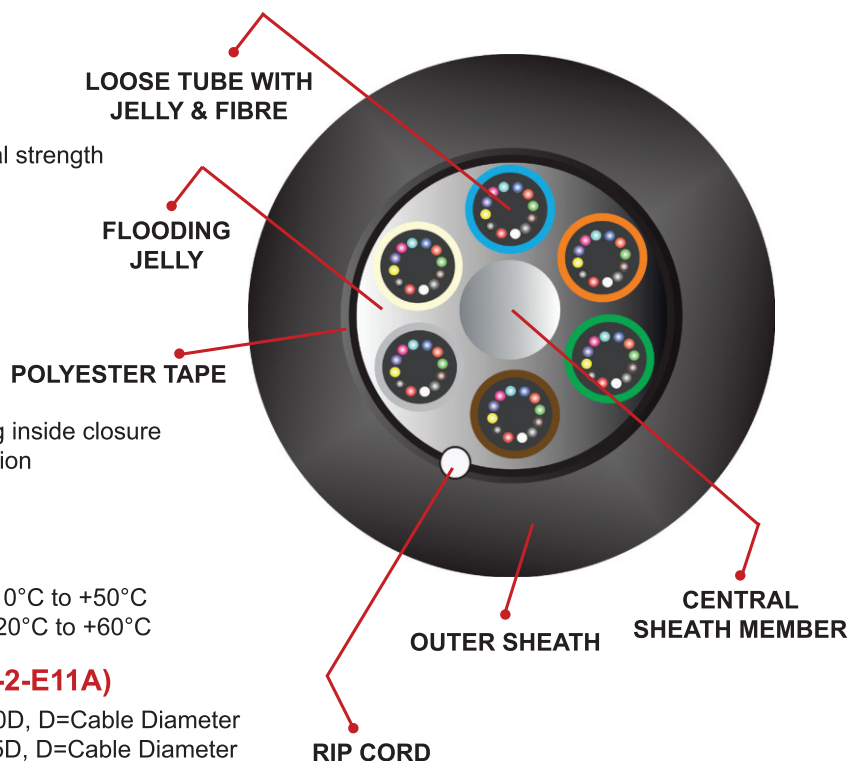
1000 N

10 Cycle ( $\pm 360^\circ$ ) 5 Kg, Weight, L=1 Mtr

1800 N (100 X 100 mm) for 60 sec

10D, D=Cable Diameter

## Multi-tube Single Sheath Unarmoured Cable Multi Loose Tube Design



## Variants\*

\*Cable can be supplied with single mode (ITU-T-G652, G655, and G657) & Multimode (50µm & 62.5µm)

\*Outer Jacket can be of PVC, LSZH, and HDPE

\*Strength member can be Steel or FRP

\*These are general characteristics; customized designs are available as per requirements

Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
Upto 72	10.0	85	1800	1000
96	12.0	115	1800	1000
144	15.0	180	1800	1000



# Outdoor Cables (2-144 F)

## Applications

Inside Duct, Pulled or Blown

## Cable Construction

288 low water peak single mode fibres in compliance with ITU-T-G.652D  
Metallic / Non metallic element used as central strength member for Tensile Strength  
Loose buffer tubes jelly filled  
Loose buffer tubes S-Z Stranded  
Cable core filled with jelly  
S-Z core wrapped with polyester tape  
UV stabilized PE outer sheath, black

## Special Features

Flexible buffer tubes provide easy fibre routing inside closure  
Lighter weight cable for fast and easy installation

## Mechanical Characteristics

Temperature Range (IEC 60794-1-2-F1)  
Laying & Installation -10°C to +50°C  
Operation -20°C to +60°C

## Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation 20D, D=Cable Diameter  
Installed 15D, D=Cable Diameter  
Repeated Bending 30 Cycle, r=20D, 5 Kg  
(IEC 60794-1-2-E6) Load, D=Cable Diameter

## Tensile Force (IEC 60794-1-2-E1)

During Installation 3000 N  
Installed 1500 N  
Torsion Resistance (IEC 60794-1-2-E7) 10 Cycle ( $\pm 360^\circ$ ) 5 Kg, weight, L=1 Mtr  
Crush Resistance (IEC 60794-1-2-E3) 1500 N (100 X 100 mm) for 60 sec  
Kink Resistance (IEC 60794-1-2-E10) 15D, D=Cable Diameter  
Water Penetration (IEC 60794-1-2-F5B) 1 Mtr Water Head, 3 Mtr Cable Sample, 24 Hours

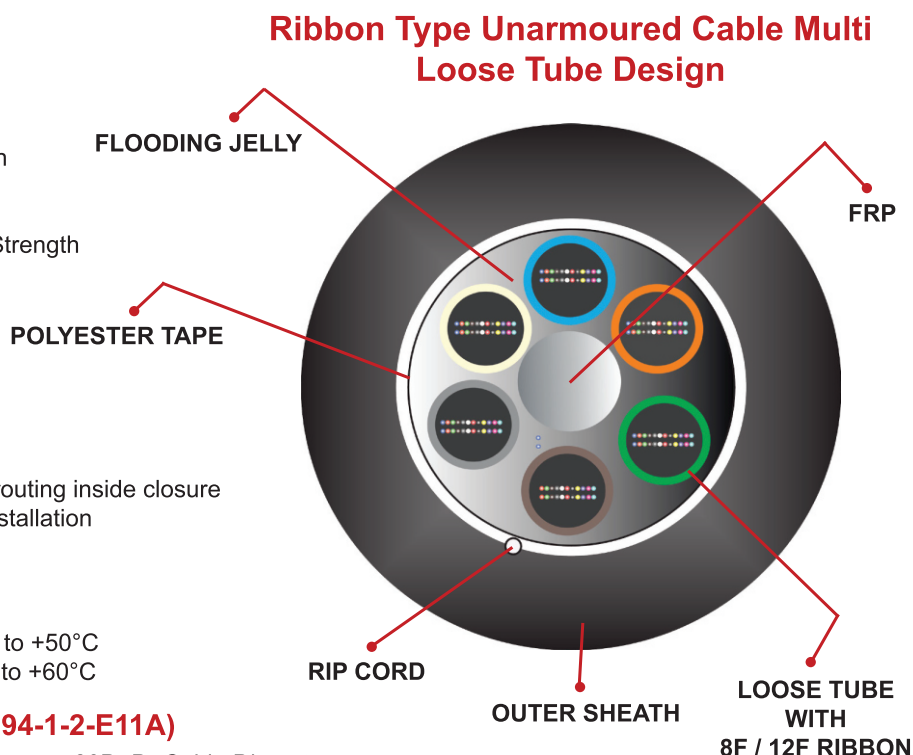
## Variants\*

\*Cable can be supplied with single mode (ITU-T-G652, G655, and G657) & Multimode (50µm & 62.5µm)

\*Outer Jacket can be of PVC, LSZH, and HDPE

\*Strength member can be Steel or FRP

\*These are general characteristics; customized designs are available as per requirements



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
96	17.0	250	3000	1500
288	18.5	330	3000	1500

# Outdoor Cables (2-12 F)

## Applications

Inside Duct, Pulled or Blown  
In areas where high mechanical load is required  
In areas where rodent attack is there

## Cable Construction

Up to 12 low water peak single mode fibres in compliance with ITU-T-G.652D  
Metallic / Anti buckling element steel wires are used as Peripheral Strength Member  
Loose buffer tube jelly filled and centrally placed in the cable  
UV stabilized PE outer sheath, black

## Special Features

Lighter weight cable for fast and easy installation  
Robust Construction

## Mechanical Characteristics

Temperature Range (IEC 60794-1-2-F1)  
Laying & Installation -10°C to +50°C  
Operation -20°C to +60°C

## Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation	20D, D=Cable Diameter
Installed	15D, D=Cable Diameter
Repeated Bending (IEC 60794-1-2-E6)	30 Cycle, r=20D, 5 Kg Load, D=Cable Diameter

## Tensile Force (IEC 60794-1-2-E1)

During Installation	1800 N
Installed	1000 N
Torsion Resistance (IEC 60794-1-2-E7)	10 Cycle ( $\pm 360^\circ$ ) 5 Kg, weight, L=1 Mtr
Crush Resistance (IEC 60794-1-2-E3)	1000 N (100 X 100 mm), for 60 sec
Kink Resistance (IEC 60794-1-2-E10)	10D, D=Cable Diameter
Water Penetration (IEC 60794-1-2-F5B)	1 Mtr Water Head, 3 Mtr Cable Sample, 24 Hours

## Variants\*

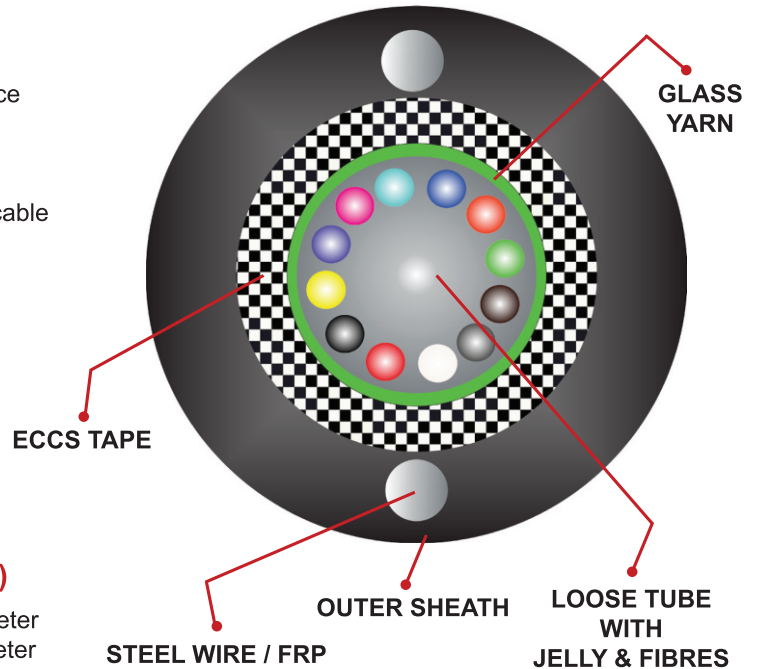
\*Cable can be supplied with single mode (ITU-T-G652, G655, and G657)

& Multimode (50µm & 62.5µm)

\*Outer Jacket can be of PVC, LSZH, and HDPE

\*Strength member can be Steel or FRP

## Uni Tube Unarmoured Cable Design



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
Upto 12	8.5	70	1800	1000

# Outdoor Cables (2-144 F)

## Applications

Direct Buried / Inside Duct  
In areas where high mechanical load is required  
In areas where rodent attack is there

## Cable Construction

Up to 144 low water peak single mode fibres in compliance with ITU-T-G.652D  
Non metallic and anti buckling element FRP rod used as Central Strength Member  
Loose buffer tubes jelly filled  
Loose buffer tubes S-Z Stranded  
Cable core filled with jelly  
S-Z core wrapped with polyester tape  
ECCS Tape Armouring (Corrugated)  
UV stabilized PE outer sheath, black

## Special Features

Corrugated steel tape act as protection against rodents and mechanical damage  
Robust construction  
Flexible buffer tubes provide easy fibre routing inside closure

## Mechanical Characteristics

Temperature Range (IEC 60794-1-2-F1)  
Laying & Installation -10°C to +50°C  
Operation -20°C to +60°C

## Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation 20D, D=Cable Diameter  
Installed 15D, D=Cable Diameter  
Repeated Bending 30 Cycle, r=20D, 5 Kg  
(IEC 60794-1-2-E6) Load, D=Cable Diameter

## Tensile Force (IEC 60794-1-2-E1)

During Installation 2700 N  
Installed 1500 N  
Torsion Resistance (IEC 60794-1-2-E7) 10 Cycle ( $\pm 360^\circ$ ) 5 Kg, weight, L=1 Mtr  
Crush Resistance (IEC 60794-1-2-E3) 1800 N (100 X 100 mm),for 60 sec  
Kink Resistance (IEC 60794-1-2-E10) 10D, D=Cable Diameter  
Water Penetration (IEC 60794-1-2-F5B) 1 Mtr Water Head, 3 Mtr Cable Sample, 24 Hours

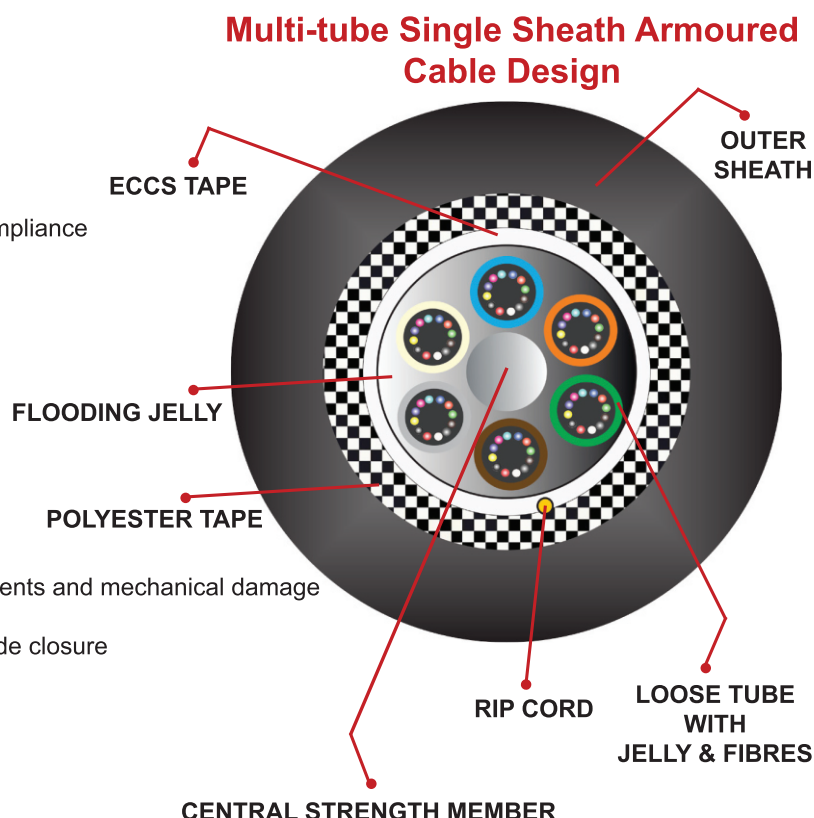
## Variants\*

\*Cable can be supplied with single mode (ITU-T-G652, G655, and G657) & Multimode (50 $\mu$ m & 62.5 $\mu$ m)

\*Outer Jacket can be of PVC, LSZH, and HDPE

\*Strength member can be Steel or FRP

\*These are general characteristics; customized designs are available as per requirements



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
Upto 72	11.5	125	2700	1500
96	13.5	170	2700	1500
144	16.5	250	2700	1500

# Outdoor Cables (2-144 F)

## Applications

Direct buried / Inside Duct  
In areas where high mechanical load is required  
In areas where rodent attack is there

## Cable Construction

Up to 144 low water peak single mode fibres  
in compliance with ITU-T-G.652D  
Non metallic and anti buckling element FRP rod  
used as Central Strength Member  
Loose buffer tubes jelly filled  
Loose buffer tubes S-Z Stranded  
Cable core filled with jelly  
S-Z core wrapped with polyester tape  
ECCS Tape Armouring (Corrugated)  
UV stabilized PE Inner & outer sheath, black

## Special Features

Corrugated steel tape act as protection against rodents  
and mechanical damage  
Robust construction  
Flexible buffer tubes provide easy fibre routing inside closure

## Mechanical Characteristics

Temperature Range (IEC 60794-1-2-F1)  
Laying & Installation -10°C to +50°C  
Operation -20°C to +60°C

## Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation 20D, D=Cable Diameter  
Installed 15D, D=Cable Diameter  
Repeated Bending 30 Cycle, r=20D, 5 Kg  
(IEC 60794-1-2-E6) Load, D=Cable Diameter

## Tensile Force (IEC 60794-1-2-E1)

During Installation 3500 N  
Installed 2000 N  
Torsion Resistance (IEC 60794-1-2-E7) 10 Cycle ( $\pm 360^\circ$ ) 5 Kg, weight, L=1 Mtr  
Crush Resistance (IEC 60794-1-2-E3) 1800 N (100 X 100 mm), for 60 sec  
Kink Resistance (IEC 60794-1-2-E10) 10D, D=Cable Diameter  
Water Penetration (IEC 60794-1-2-F5B) 1 Mtr Water Head, 3 Mtr Cable Sample, 24 Hours

## Variants\*

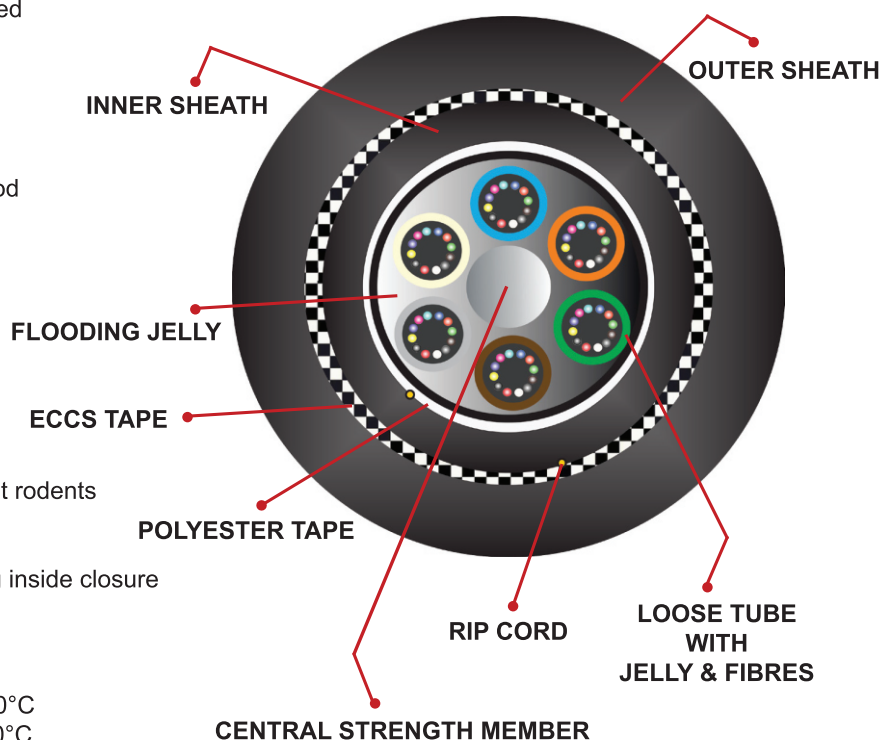
\*Cable can be supplied with single mode (ITU-T-G652, G655, and G657) & Multimode (50µm & 62.5µm)

\*Outer Jacket can be of PVC, Nylon, LSZH, and HDPE

\*Strength member can be Steel or FRP

\*These are general characteristics; customized designs are available as per requirements

## Multi-tube Double Sheath Armoured Cable Design



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
Upto 48	14.0	180	2700	1500
96	15.5	220	2700	1500
144	19.0	300	2700	1500

# Outdoor Cables (2-144 F)

## Applications

Self supporting aerial installation with rigorous load conditions including heavy wind & ice  
Suitable for span length of 100 mtrs

## Cable Construction

Up to 144 low water peak single mode fibres in compliance with ITU-T-G.652D  
Non metallic and anti buckling element FRP rod used as Central Strength Member  
Loose buffer tubes jelly filled  
Loose buffer tubes S-Z Stranded  
Cable core filled with jelly / WS Yarn  
S-Z core wrapped with polyester tape / WS Tape  
High modulus, aramid yarns peripheral strength member  
UV stabilized outer sheath, black

## Special Features

Single layer stranded construction  
Offers exceptional strength and corrosion resistance for Aerial application  
Flexible buffer tubes provide easy fibre routing inside closure

## Mechanical Characteristics

Temperature Range (IEC 60794-1-2-F1)  
Laying & Installation -10°C to +50°C  
Operation -20°C to +60°C

## Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation 20D, D=Cable Diameter  
Installed 15D, D=Cable Diameter  
Repeated Bending 30 Cycle, r=20D, 5 Kg  
(IEC 60794-1-2-E6) Load, D=Cable Diameter

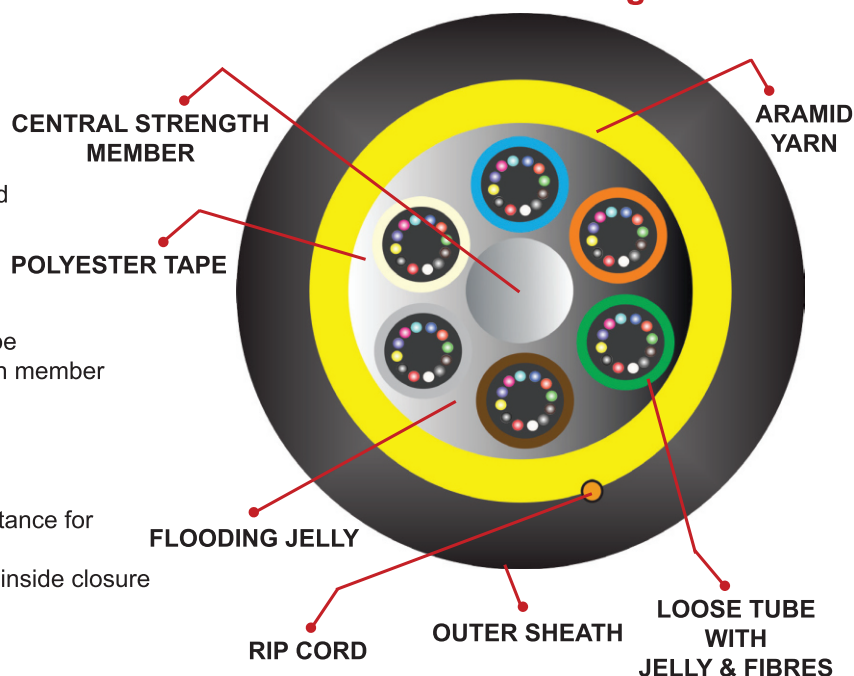
## Tensile Force (IEC 60794-1-2-E1)

During Installation 5W \* 9.81 N  
Installed 2W \* 9.81 N  
Torsion Resistance (IEC 60794-1-2-E7) 10 Cycle ( $\pm 360^\circ$ ) 5 Kg, weight, L=1 Mtr  
Crush Resistance (IEC 60794-1-2-E3) 2000 N (100 X 100 mm), for 60 sec  
Kink Resistance (IEC 60794-1-2-E10) 20D, D=Cable Diameter  
Water Penetration (IEC 60794-1-2-F5B) 1 Mtr Water Head, 3 Mtr Cable Sample, 24 Hours

## Variants\*

- \*Cable can be supplied with single mode (ITU-T-G652, G655, and G657) & Multimode (50µm & 62.5µm)
- \*Outer Jacket can be of PVC, LSZH, and HDPE
- \*Cable construction can be jelly filled or dry core
- \*Strength member can be Steel or FRP
- \*These are general characteristics; customized designs are available as per requirements

## All Dielectric Self Supporting Cable Multi Loose Tube Design



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
Upto 48	12.5	135	4000	2000
96	15.0	180	4000	2000
144	18.0	250	4000	2000



# Outdoor Cables (2-144 F)

## Applications

Lashed aerial installation with rigorous load conditions  
Including heavy wind & ice  
Suitable for span length of 100 mtrs

## Cable Construction

Up to 144 low water peak single mode fibres  
in compliance with ITU-T-G.652D  
Non metallic and anti buckling element FRP rod  
used as Central Strength Member  
Loose buffer tubes jelly filled  
Loose buffer tubes S-Z Stranded  
Cable core filled with jelly / WS Yarn  
S-Z core wrapped with polyester tape / WS Tape  
High tensile, stranded steel wire used as messenger  
UV stabilized outer sheath, black

## Special Features

Single layer stranded construction  
Offers exceptional strength and corrosion resistance for  
Aerial application with high tensile messenger  
Flexible buffer tubes provide easy fibre routing inside closure

## Mechanical Characteristics

Temperature Range (IEC 60794-1-2-F1)  
Laying & Installation -10°C to +50°C  
Operation -20°C to +60°C

## Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation 20D, D=Cable Diameter  
Installed 15D, D=Cable Diameter  
Repeated Bending 30 Cycle, r=20D, 5 Kg  
(IEC 60794-1-2-E6) Load, D=Cable Diameter

## Tensile Force (IEC 60794-1-2-E1)

During Installation 5W \* 9.81 N  
Installed 2W \* 9.81 N  
Torsion Resistance (IEC 60794-1-2-E7) 10 Cycle ( $\pm 360^\circ$ ) 5 Kg, weight, L=1 Mtr  
Crush Resistance (IEC 60794-1-2-E3) 2000 N (100 X 100 mm), for 60 sec  
Kink Resistance (IEC 60794-1-2-E10) 20D, D=Cable Diameter  
Water Penetration (IEC 60794-1-2-F5B) 1 Mtr Water Head, 3 Mtr Cable Sample, 24 Hours

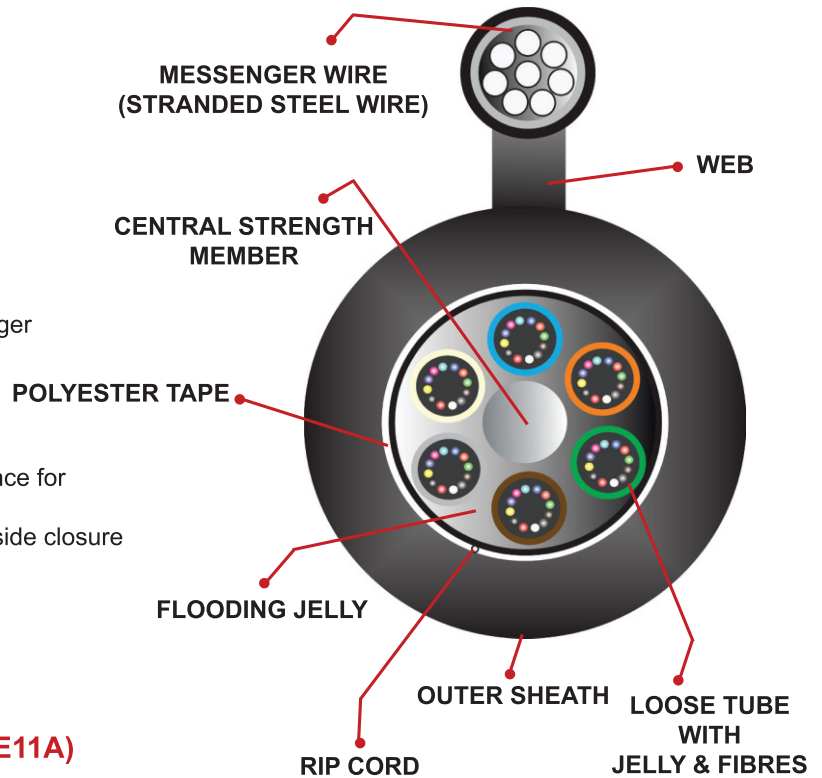
## Variants\*

\*Cable can be supplied with single mode (ITU-T-G652, G655, and G657) & Multimode (50µm & 62.5µm)

\*Outer Jacket can be of PVC, LSZH, and HDPE

\*Cable construction can be jelly filled or dry core

## Self Supporting Aerial Cable Multi Loose Tube Design



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
Upto 48	11.0	135	5000	2500
96	12.5	180	5000	2500
144	15.5	250	5000	2500



## FTTH Cable (2F)

### Applications

Low bending cable suitable for Indoor application

### Cable Construction

Primary coated fibre – G.657

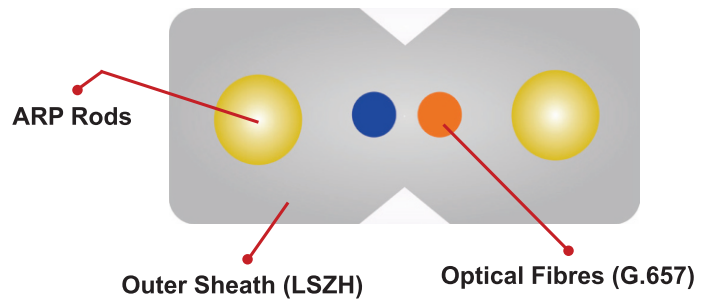
Strength Member – ARP Rods

Sheath – White LSZH Loose buffer tubes S-Z Stranded

### Variants\*

\*\*Strength member can be Steel or FRP

\*These are general characteristics; customized designs are available as per requirements



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
1 to 2 F	3.2 * 2.1	20	150	100

**Suitable for Outdoor Application**

## Drop Cable (2 to 6F)

### Applications

Drop cable suitable for outdoor application  
Suitable for introducing fibre into the building

### Cable Design

2, 4, 6 No of Single Mode Fibre – G.652D

Strength Member – ARP Rods

UV Stabilized HDPE Sheath, black

Supporting FRP Rod / Steel Wire

### Mechanical Characteristics

Temperature Range (IEC 60794-1-2-F1)

Laying & Installation -10°C to +50°C

Operation -20°C to +60°C

### Cable Bending Radius (IEC 60794-1-2-E11A)

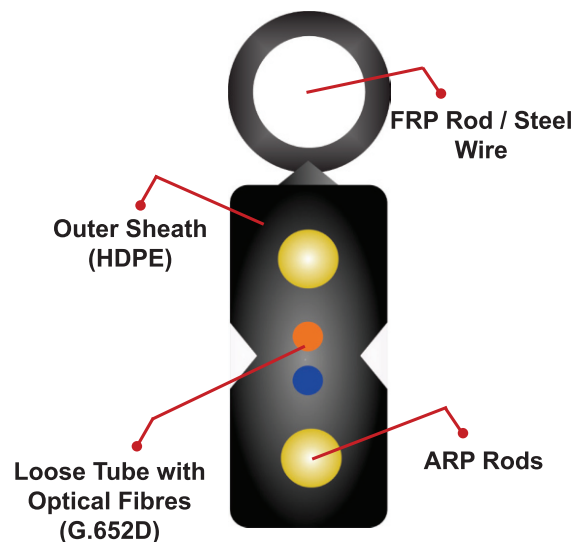
During Installation 20D, D=Cable Diameter

Installed 15D, D=Cable Diameter

### Tensile Force (IEC 60794-1-2-E1)

Installed 500 N

During Installation 1000 N



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
2 to 6 F	6.8 * 3.0	20	1000	500

# Outdoor FO Cable (2-8 F)

## Applications

Indoor or Outdoor  
Military or civil applications  
Rapid Deployment in harsh conditions

## Cable Construction

Up to 8 fibres, Single Mode or Multimode fibres  
Gel-filled stainless steel loose tube, centrally placed in the cable  
Armouring & strain relief made of stainless steel wires  
Outer Sheath is of Polyamide with extra abrasion resistance

## Special Features

Lighter weight cable for fast and easy installation  
Robust Construction  
Rodent Proof  
High crush resistance

## Temperature Range

Laying & Installation -50°C to +70°C  
Operation -40°C to +60°C

## Mechanical Characteristics

Tensile Force  
During Installation 1800 N  
Installed 1100 N  
Crush Resistance 1000 N (100 X 100 mm)

## Min Bending Radius

Permanent 10\*D, D=Cable Diameter  
Installed 15\*D, D=Cable Diameter

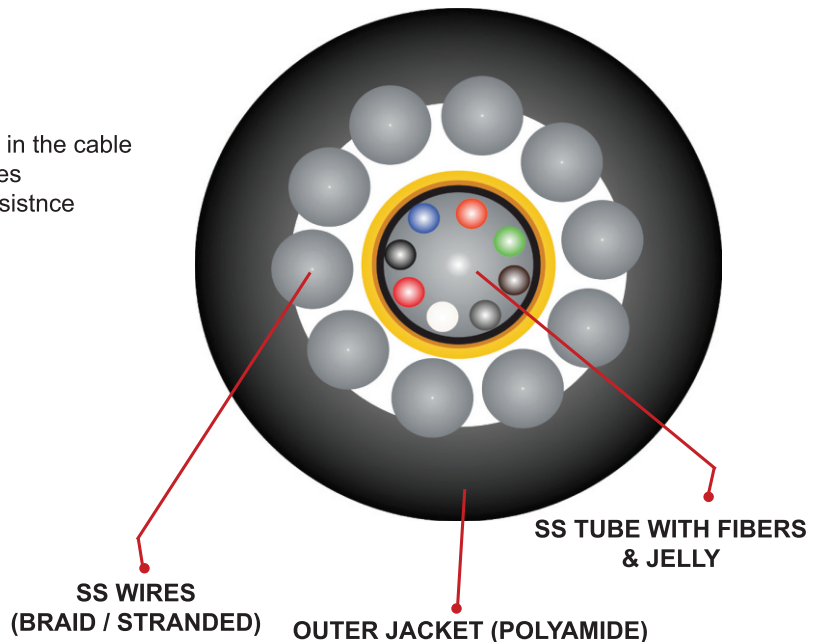
## Variants\*

\*Cable can be supplied with single mode (ITU-T-G652, G655, and G657) & Multimode (50µm & 62.5µm)

\*Outer Jacket can be of PVC, Nylon, PU, LSZH, and HDPE \*\*These are general characteristics; customized designs are available as per requirements

\*\*These are general characteristics; customized designs are available as per requirements

## Stainless Steel Loose Tube with Stainless Steel Wire Armouring Cable



Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
Upto 8	4.0	28	1000	800

# Tactical Cable (2-12 F)

## Applications

Suitable for Aerial, Pipeline Intra Building Backbones & Installation in harsh environment for Distribution

## Cable Construction

Tight Buffered Fiber without jelly compound

## Special Features

Light weight cable for fast and easy installation

## Mechanical Characteristics

Temperature Range (IEC 60794-1-2-F1)  
Laying & Installation -10°C to +50°C  
Operation -20°C to +60°C

## Cable Bending Radius (IEC 60794-1-2-E11A)

During Installation 25D, D=Cable Diameter  
Installed 20D, D=Cable Diameter  
Crush Resistance 1000 N

## Tensile Force (IEC 60794-1-2-E1)

During Installation 1000 N  
Installed 800 N

## Drum Length

2000 / 3000 / 4000 meters  $\pm$  10%

## Cable Sheath Marking

Cable sheath shall be marked in white color with hot indentation method. Marking details can be customized. Below mentioned details are generally marked on the cable sheath.

Drum Number, Telephone Symbol, Laser Symbol, Number of Fibers, Month & Year of Manufacturing, Manufacturer's Name Sequential Length Marking

## Variants\*

\*Cable can be supplied with single mode (ITU-T-G652, G655, and G657) & Multimode (50 $\mu$ m & 62.5 $\mu$ m)

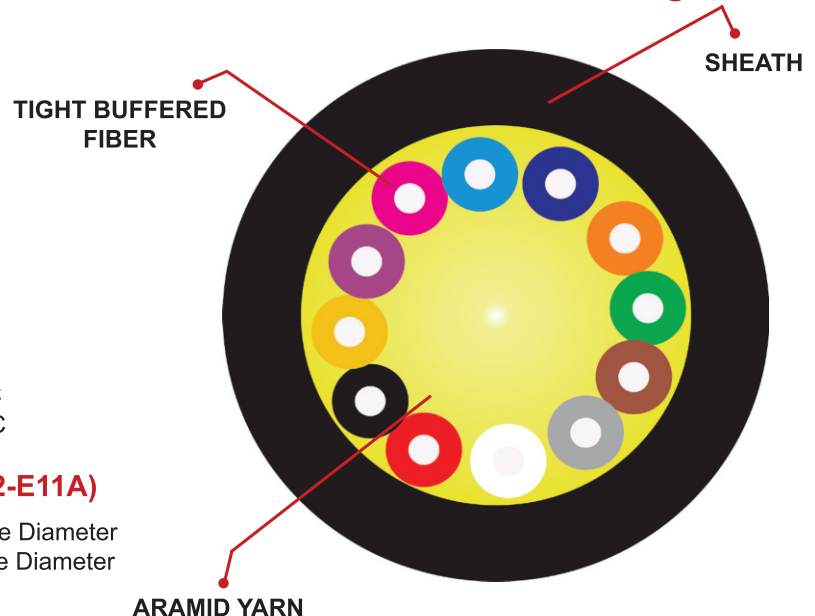
\*Outer Jacket can be of PVC, NYLON, LSZH, HDPE and PU

\*Cable construction can be jelly filled or dry core

\*Strength member can be Steel or FRP

\*These are general characteristics; customized designs are available as per requirements

## Single Tube Unarmoured Cable Central Loose Tube Design



## Cable Drum Packing

Every length will be delivered on non-returnable wooden drums. Generally the cable drum flange will be marked with following.

Arrow showing rolling direction of drum.

Manufacturer's name

Number of fibers

Cable length in meters

Drum Number

Net & gross weight

Customer's name & destination

Both ends of the cable shall be sealed to prevent the ingress of moisture during transportation & storage, physical damage

Fibre Count	Diameter (mm) (Nominal)	Weight (kg/km)	Tensile Strength Installation	Tensile Strength Installed
2 to 8	6.0	30	1000	800
12	8	40	1000	800

# 4F + 5 Pair (Hybrid Cable)

## Cable Construction details

Strength Member	FRP Rod
No. of Fibres	4
Fibre Colour	Blue, Orange, Green & Natural
Conductor	Copper
Insulation	Solid Polythene (HDPE)
Loose Tube	1, PBTP
SZ Stranding	Loose Tube & 5 Pairs will be Stranded (SZ) over the Central Strength Member, Flooded with Jelly & suitably wrapped with Polyester Tape
Moisture Barrier Sheath	Flooding Jelly & Polyal Tape Black HDPE Sheath

## Attenuation Cabled Fibrer

At 1310nm	≤ 0.38 dB/Km
At 1550nm	≤ 0.25 dB/Km

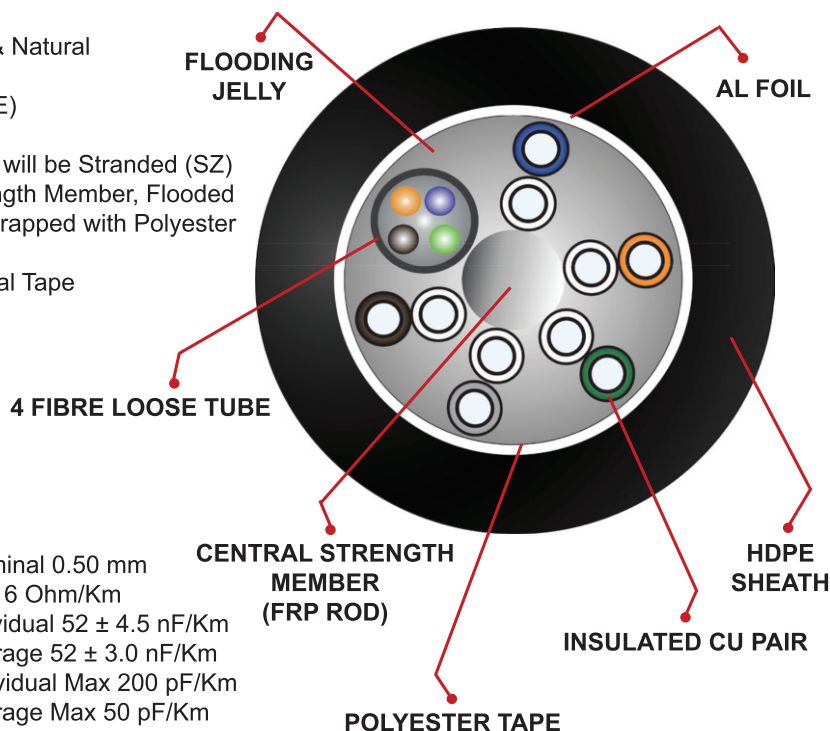
## Cable Electrical Characteristics

Conductor Diameter	Nominal 0.50 mm
Conductor Resistance at 20°C	86 ± 6 Ohm/Km
Mutual Capaciatnce at 800 to 1000 HZ	Individual 52 ± 4.5 nF/Km Average 52 ± 3.0 nF/Km
Capacitance Unbalance Pair to Pair	Individual Max 200 pF/Km Average Max 50 pF/Km
Capacitance Unbalance Pair to Ground	Individual Max 3000 pF/Km Average Max 750 pF/Km
Attenuation at 150 KHz at 20°C	Average Max 8.25 dB/Km
Near End Cross-talk at 150 Khz	Min 55.0 dB
Far End Cross-Talk at 150 Khz	Min 55.0 dB/Km
Insulation Resistance	Min 5000 Mohm.Km
Dielectric Strength	2.4 KV DC for 3 Second

## Physical Characteristics

Cable Diameter - 10.5 mm (Nominal)	
Cable Weight per Km - 110 Kg (Nominal)	
Tensile	1000 N
Crush	500 N
Impact Resistance	10 N, 0.5 Mtr, 3 Nos.
Torsion Resistance	± 180°, 5 turns, 20 N
Cable Bend	20 D, D = Cable Diameter
Temperature Range	-10°C to +60°C

## Paramount/Hybrid (4F+5Pr)/2016/01 Single Mode Fibre G.652D + 5 Pair



Fibre Colour	Fibre Type	No.of Fibres
Blue	G-652 D	1
Orange	G-652 D	1
Green	G-652 D	1
Natural	G-652 D	1

Pair No	Insulation Col	No of Pair
1st Pair	White & Blue	1
2nd Pair	White & Orange	1
3rd Pair	White & Green	1
4th Pair	White & Brown	1
5th Pair	White & Slate	1

# General Instructions

## **Drum Length**

2000 meters  $\pm$  5%

## **Cable Sheath Marking**

Cable sheath shall be marked in black colour with hot foil indentation / inkjet printing. Marking details can be customized. Below mentioned details are generally marked on the cable sheath.

Drum Number, Telephone Symbol, Laser Symbol, Number of Fibres, Cable Type, Manufacturer's Name, Year, Sequential Length Marking.

## **Cable Drum Packing**

Every length will be delivered on non-returnable wooden drums. Generally the cable drum flange will be marked with following.

- Arrow showing rolling direction of the drum.
- Manufacturer's name
- Number of fibres
- Cable length in meters
- Drum Number
- Net & gross weight
- Customer's name & destination

Both ends of the cable shall be sealed to prevent the ingress of moisture during transportation and storage, physical damage.

# **Paramount Communications Limited**

**ISO 9001 & 14001 Certified**

## **Corporate Office**

Paramount House  
KH-433, Maulsari Avenue, West End Greens, Rangpuri, New Delhi 110 037, India  
t : +91 11 45618900  
e : [pcl@paramountcables.com](mailto:pcl@paramountcables.com)

## **Plants**

### **Khushkhera Plant**

Plot No.SP-30A RIICO Industrial Area, Khushkhera, Karoli,  
District Alwar, Rajasthan 301707  
t: +91 1493 513601/27, f: +91 1493 250222  
e: [pcck@paramountcables.com](mailto:pcck@paramountcables.com)

### **Dharuhera Plant**

37 Industrial Estate, Dharuhera, District Rewari, Haryana 242692  
t: +91 1274 2422351, f: +91 1274 242552  
e: [pcldw@paramountcables.com](mailto:pcldw@paramountcables.com)



[www.paramountcables.com](http://www.paramountcables.com)