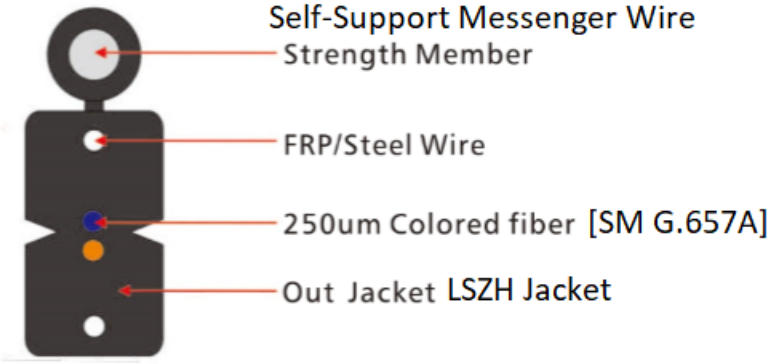
HTI Global Resources

Self-support (Outdoor) Unifi / Fiber To The Home (FTTH) Aerial Flat Drop Cable

GJYXFCH Series



1. Applications

- Outdoor Aerial and Duct Drop Installation. Also applicable for inddor usage.
- Use for Fiber-To-The-Home (FTTH)
- High-Speed Optical Routes in building.

2. Features

- 1-12 Coloured Fibers as per requirement
- This cable design with excellent mechanical properties including elasticity, yield strength, ultimate tensile strength and ductility are usually part of material specifications and are obtained by tensile testing.
- Small diameter, FRP (Fiber Reinforced Plastic) / Steel Wire member to protect the fiber optic glass, light-weight, soft and bendable, easy to deploy and maintenance.
- Provide great tensile/pulling strength & good resistance lateral crushing during installation work
- Water resistant, weather & UV resistant meet the requirement of thunder-proof and waterproof.
- Outer Jacket also available in Frame Retardant (FR) and Low Smoke Zero Halogen (LSZH) is Fire retardant.
- Two parallel strength member are placed at the two sides. A strong steel wire as the additional strength member is also applied. Follow by the cable is completed with a Black HDPE sheath. This cable can avoid any damages caused by rodent and others animals.

3. Features

The cable should meet relevant standard like:

- IEC 60793-1 : Optical Fibres Measurement Methods and Test Procedures.
- IEC 60794-1: Optical Fibre Cable Generic Specification
- IEC 61754 : Fibre Optic Interconnecting component connectors families Performing Test and Functions
- IEEE-383 : Cables Burn Test
- RoHS materials Compliance : RoHS stands for Restriction of Hazardous Substances. The restricted materials are hazardous to the environment and pollute landfills, and are dangerous in terms of occupational exposure during manufacturing and recycling.
- REACH materials Compliance: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) is a European Union regulation
- Fiber Optical Performance and Macro bending loss performance duly complied to ITU-T Compliance. ITU-T is Guidance on measurement and numerical prediction of electromagnetic fields for compliance with human exposure limits for telecommunication installations
- G657 Class A Singlemode Fiber.
- Technical Parameter: Cable IEC 60794-1-2 METHOD

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Fiber Type: ITU-T SM G657A1

Number of fiber		1-12 core 1,2,4,6,8,12
Strength member	Material	Galvanized steel wire / FRP /KFRP
	Diameter	2 * (0.5-0.8mm)
Self Support Messenger wire	Material	Galvanized steel wire
	Diameter	1.0mm
Outer Sheath	Material	LSZH
	Diameter	1.8 +/- 0.2mm
Cable size (height * width)	2.0 (+/- 0.1) mm x 5.2 (+/-0.2)mm	
Cable sheath thickness	Max 0.8 mm / Min 0.4mm	
Messenger sheath thickness	0.5 – 0.7mm	

Weight (kg)	Minimum allowable Tensile Strength (N)		Minimum allowable Crush Load (N/100mm)		Minimum Bending Radius (MM)		Storage Temperature (°C)
	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term	
21.7	400	200	2200	1000	20D	10D	-20 ~ +60

Fiber Optic Categories: IEC 60793

		Grade 0.1 dB single mode	Grade A single mode	Grade B single mode std	Grade M multi-mode std	
Insertion Loss *	Random mate	0.06 dB mean 0.15 dB >97%	0.15 dB mean 0.30 dB >97%	0.50 dB mean 0.35 dB >97%	0.30 dB mean 0.20 dB >97%	EN 61300-3-34
	Against ref.	0.15 dB max	0.30 dB max	0.35 dB max		EN 61300-3-34 Method B
Return Loss	PC	>45	>45	>45	>25	EN 61300-3-6
	UPC	>50	>50	>50		Method 1
	APC	>70	>70	>70		

Fiber Category ISO / IEC 11801 EN 50173		OM2 Bend Insensitive	OM3 Bend Insensitive	OM4 Bend Insensitive
Standard and Norms		IEC 60793-2-10 A1a TIA/EIA 492 AAAB	IEC 60793-2-10 A1a TIA/EIA 492 AAAc	IEC 60793-2-10 A1a TIA/EIA 492 AAAD
Geometrical Characteristics				
Core diameter (um)		50 +/- 2	50 +/- 2	50 +/- 2
Cladding diameter (um)		125+/-1.0	125+/-1.0	125+/-1.0
Coating Diameter uncolored (um)		242+/-5	242+/-5	242+/-5
Concentricity error code / cladding (um)		<=1	<=1	<=1
Attenuation				
850 dB/km		<=2.7	<=2.5	<=2.5
1300 dB/km		<=0.8	<=0.8	<=0.8
Bending Loss				
850/1300 nm 2 luns	f=7.5mm	<=0.2 dB / <= 0.5dB	<=0.2 dB / <= 0.5dB	<=0.2 dB / <= 0.5dB
	f=15mm	<=0.1 dB / <= 0.3dB	<=0.1 dB / <= 0.3dB	<=0.1 dB / <= 0.3dB

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Bandwidth				
Overfilled launch (OFL)	850nm	>=500 MHz/km	>=1500 MHz/km	>=3500 MHz/km
	1300nm	>=500 MHz/km	>=1500 MHz/km	>=3500 MHz/km
Effective laser launch is assured using DMD	850nm		>=2000 MHz/km	>=4700 MHz/km
Maximum link length				
1GB/s 850nm (1000 BASE SX)		550m	1000m	1000m
1GB/s 1300nm (1000 BASE LX)		550m	550m	550m
10GB/s 850nm (10 GBASE SX)		82m	300m	550mm
10GB/s 1300nm (10 GBASE LX4)		300m	300m	300m
40-100 GB/s 850 nm (40/100 GBASE-SR)			140m	170m

Fiber Category SINGLE MODE		SM	SM A1 Bend Insensitive	SM A2 Bend Insensitive
Standard and Norms		IEC 60793-2-50 B.1.3 ITU G.652.D	IEC 60793-2-50 B.1.3 & B6.A ITU G.657.A1	IEC 60793-2-50 B.1.3 & B6.A&B ITU G.657.A2 & B2
Geometrical Characteristics				
Cladding diameter (um)		125+/-1.0	125+/-1.0	125+/-1.0
Coating Diameter uncolored (um)		242+/-5	242+/-5	242+/-5
Cladding non-circularity (%)		<=0.7	<=0.7	<=0.7
Concentricity error code / cladding (um)		<=0.5	<=0.5	<=0.5
Attenuation				
1310 nm dB/km		0.33 – 0.35	0.33 – 0.35	0.33 – 0.35
1383 nm dB/km		0.32 – 0.35	0.32 – 0.35	0.32 – 0.35
1460 nm dB/km		0.25	0.25	0.25
1550 nm dB/km		0.19 – 0.20	0.19 – 0.20	0.19 – 0.20
1625 nm dB/km		0.20 – 0.21	0.20 – 0.21	0.20 – 0.21
Bending Loss				
1 Turn r 7.5mm	1550nm			<= 0.50 db
	1625nm			<= 1.00 db
1 Turn r 10 mm	1550nm		<= 0.75 dB	<= 0.10 db
	1625nm		<= 1.50 dB	<= 0.20 db
1 Turn r 15mm	1550nm		<= 0.25 dB	<= 0.03 db
	1625nm		<= 1.00 dB	<= 0.10 db
Chromatic dispersion				
1285 – 1330 nm (ps/km nm)		<=131	<=131	-
1550nm (ps/km nm)		<=18.0	<=18.0	-
1625nm (ps/km nm)		<=22.0	<=22.0	-
Mode-field Diameter				
At 1310 nm (um)		9.0 +/- 0.4	9.0 +/- 0.4	8.8 +/- 0.4
At 1550 nm (um)		10.1 +/- 0.5	10.1 +/- 0.5	9.8 +/- 0.5
Mode-field Diameter				
Link value (ps/vkm)		<= 0.06	<= 0.06	<= 0.06
Individual fiber(ps/vkm)		<= 0.1	<= 0.1	<= 0.1

Packing : 1KM/drum or 2KM per wood-drum