Cablexa
RELIABLE CONNECTIVITY

SPECIFICATION

Fig8 Drop Cable tight buffer Type 4 Core SM

Description

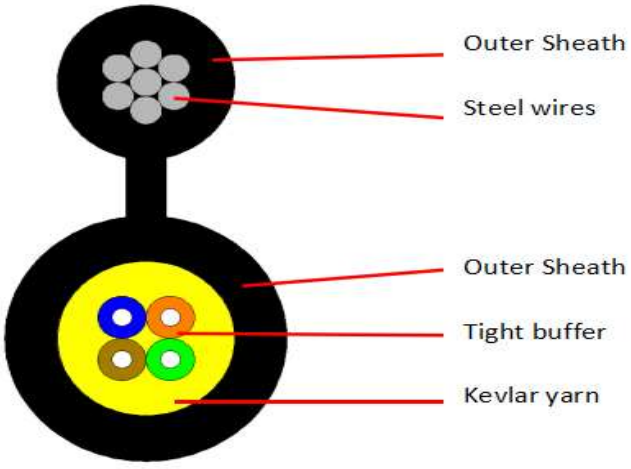
Cablexa FTTH Cable directly connected to their homes, their bandwidth, wavelength and transmission technology type are not restricted. 4pcs 0.6mm tight buffer, kevlar yarn inside to make cable more tension, then the cable is completed with a black LSZH sheath.

Application

1.Adopted to outdoor level and vertical distribution.
2.Suitable for connect with communication equipment.
3.Long distance and local area network communication.

Characteristics

1. Good mechanical and environment characteristic
2. Anti-UV characteristic meet the requirements of relevant standards
3. The mechanical aristocratic meet the requirements of relevant standards
4. Soft ,flexible ,easy to lay and splice,and with big capacity data transmission
5. Meet various requirements of market and clients



Cable construction details

Items		Description
Number of fiber		4core
Fiber type		SM G657A1/G657A2
Buffer OD		0.6mm
Buffer Color		Blue. Orange . Green, Brown
Messenger	Material	Galvanized steel wire
	Diameter	0.4mm*7
Strength member	Material	Kevlar yarn
Outer sheath	Material	LSZH
	Color	Black
	Diameter	3.5±0.1*6.2±0.2mm

Cablexa
RELIABLE CONNECTIVITY

Cable Mechanical characteristic		
Items		Weight(kg/km)
4core		25KG/KM ±3
Installation Temperature range		.-15--+80 ℃
Operation and transport temperature		.-20--80 ℃
Storage temperature		.-20--+80 ℃
Tensile strength (N)	Long term	600N
	Short term	1000N
Crush load (N/100mm)	Long term	1000N
	Short term	2200N
Min Bending Radius(mm)	Dynamic	30D mm
	Static	15D mm

Remark: All the values in the table are reference value, subject to the actual customer's request.

Name of test	Standard	Test Condition	Test result
Tensile Loading Test	IEC 60794-1-2-E1	1. Wavelength test: 1550 ± 10 nm 2. Optical drop wire flat cable with messenger wire test: ≥ 50 m 3. Load test: ≥ 1000 N 4. Loading time: 5 minutes	1. The fiber strain ≤ 0.40% (≤ 40% of fiber proof test). 2. Change of attenuation for each test stage (during loaded and after load removal) compared with attenuation before testing < 0.1 dB. 3. No fiber break and no sheath
Impact Resistance Test	IEC 60794-1-2-E4	1. Wavelength test: 1550 ± 10 nm 2. Radius of hammer head: 12.5 ± 0.1 mm 3. Number of impacts: 20 cycles 4. Impact rate: ≤ 2 second / cycle 5. Impact energy: 0.74 N.m or 0.54 lb.ft. @ D ≤ 3.8 6. Location of impact on the sample: According to item no. 2.7.4. W1 size of item no. 2.7. Optical drop wire flat cable dimensions	1. Change of attenuation for each test stage (during loaded and after load removal) compared with attenuation before testing < 0.1 dB. 2. No fiber break and no sheath damage.
Bending Test	IEC 60794-1-2-E11A	1. Wavelength test: 1550 ± 10 nm 2. Diameter of mandrel: 30 mm 3. Number of cycles: 1 cycle 4. Number of turns: 10	1. Change of attenuation for each test stage (during loaded and after load removal) compared with attenuation before testing < 0.1 dB. 2. No fiber break and no sheath damage.
Temperature Cycling Test	IEC 60794-1-2-F1	1. Wavelength test: 1550 ± 10 nm 2. Variation of temperature: -20 ± 2°C to + 80 ±2°C 3. Number of cycles: 2 cycle 4. Soak time: according to soak time table	1. Change of attenuation for each test stage (during loaded and after load removal) compared with attenuation before testing < 0.1 dB/km. 2. No fiber break and no sheath damage.

Carbon Black of sheath test	IEC 60881-605	Test Method for Carbon Black in Olefin Plastics.	2.6 ± 0.25 %
Tensile strength and elongation of sheath test	ASTM D-2663	Tensile strength and elongation testing shall be tested in accordance with ASTM D-2633.	The charred of affected portion shall not have reached within 50 mm of the lower edge of the top clamp

Remark: All the values in the table are reference value, subject to the actual customer's request.

Fiber characteristic

Characteristic		Condition	Specified values	Units
Attenuation		1310nm	≤0.32	[dB/km]
		1383nm(after H_2-aging)	≤0.31	[dB/km]
		1460nm	≤0.31	[dB/km]
		1550nm	≤0.18	[dB/km]
		1625nm	≤0.20	[dB/km]
Attenuation vs.Wavelength Max.α different		1285-1330nm,in reference to 1310nm	≤0.03	[dB/km]
		1525-1575nm,in reference to 1550nm	≤0.02	[dB/km]
Dispersion Coefficient		1285-1340nm	-3.5 to3.5	[ps/(nm2.km)]
		1550nm	≤18	[ps/(nm2.km)]
		1625nm	≤22	[ps/(nm2.km)]
Zero Dispersion Wavelength(λ_0)		--	1300-1324	[nm]
Zero Dispersion Slope(S_0)		--	≤0.092	[ps/(nm2.km)]
Typical Value		--	0.086	[ps/(nm2.km)]
PMD	Maximum Individual Fibre	--	≤0.1	ps/√km
	Link Design Value(M=20,Q=0.01%	--	≤0.06	ps/√km
	Typical Value	--	0.04	ps/√km
Cable Cutoff Wavelength (λcc)		--	≤1260	[μm]
Mode Field Diameter(MFD)		1310nm	8.7-9.5	[μm]
		1550nm	9.8-10.8	[μm]
Effective Group Index Refraction (N_{eff})		1310nm	1.466	--
		1550nm	1.467	--
Point Discontinuities		1310nm	≤0.05	[dB]
		1550nm	≤0.05	[dB]

Cablexa
RELIABLE CONNECTIVITY

Geometrical Characteristics

Cladding Diameter	--	125.0±0.7	[μm]
Cladding Non-Circularity	--	≤1.0	[%]
Coating Diameter	--	235-255	[μm]
Coating-Cladding Concentricity Error	--	≤12.0	[μm]
Coating Non-Circularity	--	≤6.0	[%]
Core-Cladding Concentricity Error	--	≤0.6	[μm]
Curl(radius)	--	≥4	[m]
Environmental Characteristics	**1310nm,1550nm&1625nm**		
Temperature Dependence Induced Attenuation	-60℃ to +85℃	≤0.05	[dB/km]
mperature-Humidity Cycling Induced Attenuati	'-10℃ to +85 ℃，98% RH	≤0.05	[dB/km]
ater Immersion Dependence induced Attenuati	23℃，for 30 days	≤0.05	[dB/km]
Damp Heat Dependence Induced Attenuation	85 ℃ and 85% RH,for 30 days	≤0.05	[dB/km]
Dry Heat Aging	85 ℃	≤0.05	[dB/km]
Mechanical Specifications			
Proof Test	--	≥9.0	[N]
	--	≥1.0	[%]
	--	≥100	[Kpsi]
Macro-bend Induced Loss — 100 Turns Around a Mandrel of 30mm Radius	1625nm	≤0.05	[dB]
Macro-bend Induced Loss — 100 Turns Around a Mandrel of 25mm Radius	1310nm and 1550nm	≤0.05	[dB]
Macro-bend Induced Loss — 1 Turns Around a Mandrel of 16mm Radius	1550nm	≤0.05	[dB]
Macro-bend Induced Loss — 1 Turns Around a Mandrel of 16mm Radius	1625nm	≤1.5	[dB]
Coating Strip Force	typical average force	1.5	[N]
	peak force	1.3-8.9	[N]
Dynamic Fatigue Parameter(n_d)	--	≥20	--

Packaging and Drum

1.**Packing material:** Wooden drum

2.Packing length: standard length of cable shall be 1 km. Other cable length is also availabler

Cable marking and cable reel marking

The cable sheath shall be marked with white characters according to customer's requirement.

Description	Part Number
CABLEXA FIBER CABLE 4FO SM 9/125	4F SM GYXTPY