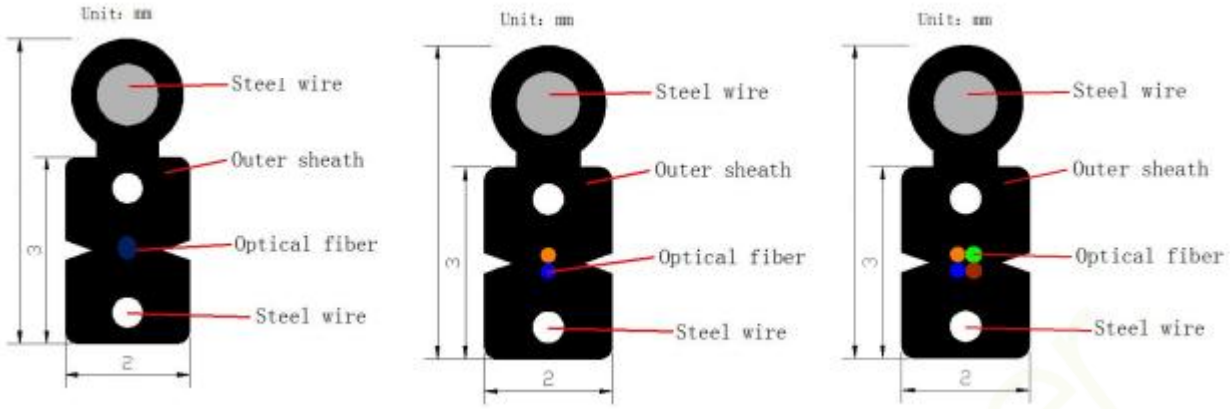
FTTH Bow Type Drop Optic Cable 1 2 4 6 Cores SM G657A1 G657A2 LSZH Steel Strength Member Black

Cable Design



Technical data

No. of cable			1	2	4	6
Fiber Model			G.652D			
Strength Member	Diameter（±0.03）mm		0.5			
	NO.		2			
	Material		Steel wire			
Steel wire	Diameter（±0.03）mm		1.0			
Outer Sheath	Material		LSZH			
	Color		Black			
Cable size（±0.2）mm			2.0×5.0			
Cable Weight（±2）kg/km			19			
Allowable Tensile Strength	Short Term	N	600			
	Long Term		300			
Allowable Crush Resistance	Short Term	N/100mm	2200			
	Long Term		1000			
Min. bending radius	Without Tension		10×Cable-ϕ			
	Under Maximum Tension		20×Cable-ϕ			
Temperature range（℃）	Installation		-20~+60			
	Transport&Storage		-40~+70			
	Operation		-40~+70			

Fiber Colors

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White

The properties of single mode optical fiber (ITU-T Rec. G.652D)

Characteristic	condition	data	unit
Optical properties			
Attenuation	1310nm 1383nm(氢老化后) 1490nm 1550nm 1625nm	≤0.35 ≤0.35 ≤0.23 ≤0.22 ≤0.23	dB/km dB/km dB/km dB/km dB/km
Relative wavelength attenuation @1310nm @1550nm	1285～1330nm 1525～1575nm	≤0.05 ≤0.05	dB/km dB/km
Dispersion in the wavelength range of	1285～1340nm 1550nm	≤3.5 ≤18	ps/(nm.km) ps/(nm.km)
Zero dispersion wavelength		1300～1324	nm
A zero-dispersion slope		≤0.092	ps/(nm^2.km)
Polarization Mode Dispersion Coefficient PMD Single fiber maximum Fiber link value (M=20, Q=0.01%) Typical value		≤0.2 ≤0.1 0.04	ps/ ps/ ps/
Cable cut-off wavelength（λcc）		≤1260	nm
Mode field diameter （MFD）	1310nm 1550nm	8.8±0.4 9.8±0.5	μm μm
Attenuation discontinuities	1310nm 1550nm	≤0.05 ≤0.05	dB dB
Geometric characteristics			
Core diameter		125±0.7	μm
Cladding roundness		≤0.7	%
Coating diameter		245±5	μm
Coating / package concentricity error		≤12.0	μm
Core / package concentricity error		≤0.5	μm
The warpage (radius)		≥4	m
Environmental characteristics（1310nm、1550nm、1625nm）			
Temperature additional attenuation	-60℃ ～+85℃	≤0.05	dB/km
Temperature-humidity cycle additional attenuation	-10℃ ～+85℃，98% Relative humidity	≤0.05	dB/km
Flooding additional attenuation	23℃，30 days	≤0.05	dB/km
Hot and humid additional attenuation	85℃和 85% Relative humidity，30 days	≤0.05	dB/km
Dry heat aging	85℃	≤0.05	dB/km
Mechanical properties			
Screening tension		≥9.0	N
The macro bend Additional attenuation 10 CircleΦ30mm 10 CircleΦ30mm 1 CircleΦ20mm 1 CircleΦ20mm	 1550nm 1625nm 1550nm	 ≤0.03 ≤0.1 ≤0.1	 dB dB dB

1 CircleΦ15mm 1 CircleΦ15mm	1625nm 1550nm 1625nm	≤0.2 ≤0.5 ≤1.0	dB dB dB
Coating peeling force	Typical average	1.5	N
Dynamic fatigue parameters		≥20	

Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: Short term tension - Length of cable: about 50m	- Fiber strain ≤ 0.36% - Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change ≤ 0.05dB@1550nm - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 5J	- Loss change ≤ 0.1dB@1550nm - No fiber break and no sheath damage.
Temperature Cycling Test YD/T901-2001-4.4.4.1	- Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycle: 2	- Loss change ≤ 0.05 dB/km@1550 nm - No fiber break and no sheath damage.

Sheath marking

The optical fiber drop cable shall have sequentially numbered length marking at intervals of approximately 1 meter. The starting number of ordering length for any coil shall begin whit zero meter. The accuracy of the measurement of length marking shall be held within the limits of ±1%.

a) Type of wire
b) Year and month of manufacture
c) Length marking each meter along the wire