

96 Cores ADSS Fiber Optical Cable, Single-mode G652D, Span 100m, Single Sheath

- For FTTH Solution

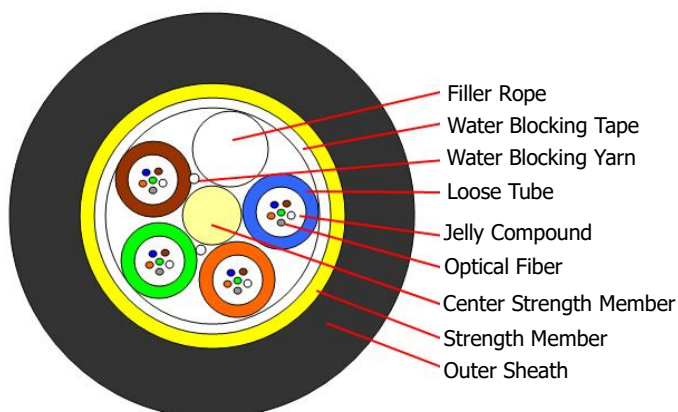


* Images are for illustrative purposes *

Products Description

An outdoor ADSS single sheath cable is a lightweight, all-dielectric fiber optic cable designed for self-supporting aerial installation. It is best suited for shorter spans, such as those found in distribution power line networks, where its reduced weight and smaller diameter offer significant advantages.

Cable Structure



Keyed Characteristics

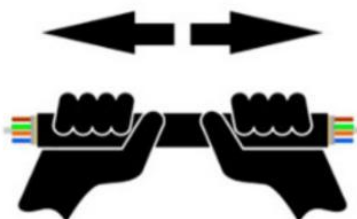
- ✓ Small cable diameter (adapt for bad climate), light weight, wide span, low attached load on tower;
- ✓ Non-metal structure, good insulation, anti-thunder.;
- ✓ Fine production technology, even force for aramid yarn, with superior stress flexibility;
- ✓ Can be installed without interruption;
- ✓ Using PE/AT sheath, excellent tracking resistance;
- ✓ The optical cable has high tensile strength and can be self-supporting and overhead within small span;
- ✓ Excellent tensile properties and temperature characteristics;
- ✓ Full dielectric structure, especially suitable for lightning-prone areas.

Application

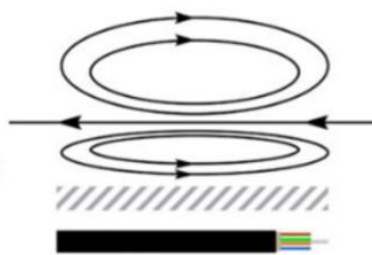
- ✓ Adopted to outdoor aerial self-supporting installation;
- ✓ Long-distance communication, local trunk line, CATV & computer networks system, Telecom or outside plant campus backbone applications;
- ✓ Ethernet LAN Network, CCTV, Network Camera, PLC;
- ✓ Mechanically, rugged, cable design for : Aerial, duct.



Water Resistant



Tensile Strength

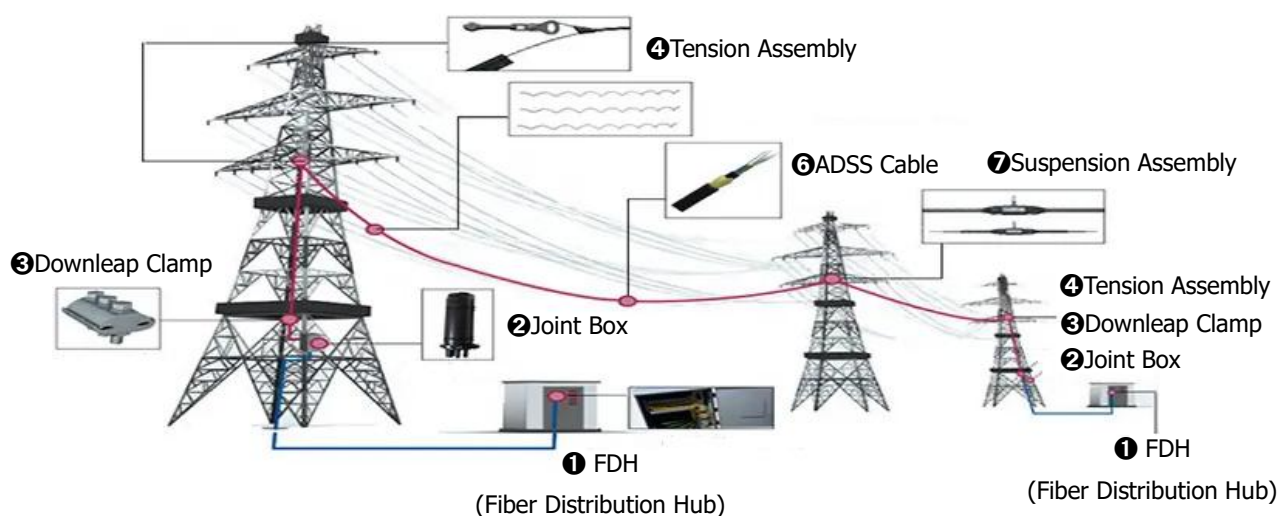


All Dielectric Construction

Standard Compliance



ADSS Solution Scheme



Fiber Color

NO.	1	2	3	4	5	6
Colour	Blue	Orange	Green	Brown	Gray	White
	7	8	9	10	11	12
	Red	Black	Yellow	Violet	Pink	Aqua

Loose Tube Color

NO.	1	2	3	4	5	6
Colour	Blue	Orange	Green	Brown	Gray	White
	7	8	9	10	11	12
	Red	Black	Yellow	Violet	Pink	Aqua

Technical Parameter

No. of cable	/	96	No. of cable
Design (Strength Member+Tube&Filler)	/		1+8
Fiber Type	/		G.652D
Central Strength Member	Material	mm	FRP
	Diameter		2.0±0.05
Loose Tube	Material		PBT
	Diameter	mm	2.1±0.05
	Thickness		0.30±0.05
	MAX.NO./per		12
	NO.		8
Filler Rope	Material		LDPE
	Diameter	mm	2.1±0.05
	NO.		1
Water Blocking Layer	Material	/	Water Blocking Yarn& Water Blocking Tape
Additional Strength Member	Material	/	Aramid Yarn
Outer Sheath	Material	mm	MDPE
	Thickness		1.7±0.1
	Color		Black
Cable Diameter (±0.2mm)		mm	10.8
Cable Weight (±5.0kg/km)		kg/km	90
Attenuation Coefficient	1310nm	dB/km	≤0.35
	1550nm		≤0.21
Cable Breaking Strength (RTS)		kn	≥9.5
Working Tension (MAT)		kn	≥3.48
Span		M	150
Crush Resistance	Short Term	N/100m	≥2000
	Long Term	m	≥1000
Min. Bending Radius	Without Tension	mm	10.0×Cable-φ
	Under Maximum Tension		20.0×Cable-φ
Temperature Range (°C)	Installation	°C	-20~+60
	Transport&Storage		-40~+70
	Operation		-40~+70

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

Item	Specification
Fiber Type	Single mode
Fiber Material	Doped Silica
Attenuation Coefficient @ 1310nm @ 1383nm @ 1550nm @ 1625nm	≤0.35 dB/km ≤0.32 dB/km ≤0.21 dB/km ≤0.24dB/km
Point Discontinuity	≤0.05 dB
Cable cut-off Wavelength	1260nm
Zero-dispersion Wavelength	1300 ~ 1324nm
Zero-dispersion Slope	≤0.092 ps/(nm ² .km)
Chromatic Dispersion @ 1288 ~ 1339nm @ 1271 ~ 1360nm @ 1550nm @ 1625nm	≤3.5 ps/(nm. km) ≤5.3 ps/(nm. km) ≤18 ps/(nm. km) ≤22 ps/(nm. km)
PMDQ (Quadrature Average*)	≤0.2 ps/km ^{1/2}
Mode field diameter @ 1310nm	9.2±0.4μm
Core / Clad Concentricity Error	≤0.5μm
Cladding Diameter	125.0±0.7μm
Cladding non-circularity	≤1.0%
Primary coating Diameter	245.0±10μm
Proof Test Level	100 kpsi (=0.69 Gpa), 1%
Temperature Dependence (0oC~ +70oC @ 1310 & 1550nm)	≤0.1 dB/km

Main mechanical & Environmental Performance Test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: 3400N - Length of cable: about 50m	- Fiber strain $\leq$ 0.33% - Loss change $\leq$ 0.1 dB @1550nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: 2000/100mm - Load time: 1min	- Loss change $\leq$ 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 $\leq$ 0.1dB@1550nm - No fiber break and no sheath damage.
Temperature Cycling Test YD/T901-2001-4.4.4.1	- Temperature step: +20oC $\rightarrow$ -40oC $\rightarrow$ +70oC $\rightarrow$ +20oC - Time per each step: 12 hrs - Number of cycle: 2	- Loss change $\leq$ 0.05dB/km@1550nm - 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 with zero meter. The accuracy of the measurement of length marking shall be held within the limits of $\pm 1\%$.

- Manufacturer's name;
- Type of wire;
- Length marking each meter along the wire;
- Year and month of manufacture.

Packing Guide