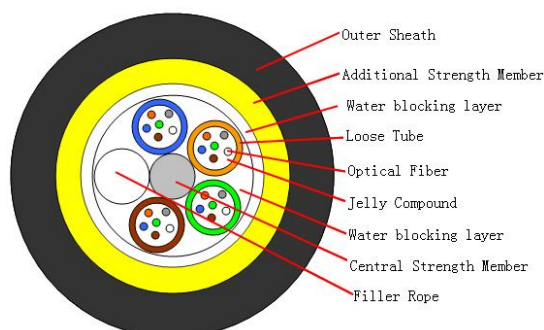


Outdoor Fiber Optical Cable Aerial ADSS Fiber Cable Single Jacket

SM Non-Metal 96 144 288 Core PE

Cable Design



Technical data

No. of cable		/	6	12	24	48	72	96	144	288
Design (StrengthMember+Tube&Filler)		/	1+5	1+5	1+5	1+5	1+6	1+8	1+1 2	1+9 +15
Fiber type		/	G.652D							
Central Strength Member	Material	mm	FRP							
	Diameter (±0.05mm)		1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0
Loose Tube	Material	mm	PBT							
	Diameter (±0.05mm)		1.8	1.8	1.8	2.0	2.0	2.0	2.0	2.0
	Thickness (±0.03mm)		0.32	0.32	0.32	0.35	0.35	0.35	0.35	0.35
	MAX.NO./per		6	6	6	12	12	12	12	12
Filler Rope	Material	mm	LDPE							
	Diameter (±0.05mm)		1.8	1.8	1.8	2.1	—	—	—	—
	NO.		4	3	1	1	—	—	—	—
Water Blocking Layer	Material	/	Flooding Compound& Water Blocking tape							
Additional Strength Member	Material	/	Aramid Yarn							
Outer Sheath	Material	mm	PE							
	Thickness		1.8 (nominal)							
	colour		black.							
Cable Diameter(±0.2mm)		mm	9.6	9.6	9.6	10.2	10.8	12.1	13.8	16
Cable Wegtht(±10.0kg/km)		kg/km	68	68	68	80	90	120	135	165
Attenuation coefficient	1310nm	dB/km	≤0.35							
	1550nm		≤0.21							
Cable breaking strength(RTS)		kn	≥8.0							



Working Tension (MAT)		kn	≥ 3.2
Wind velocity		m/s	30
Icing		mm	5
Crush Resistance	Short Term	N/100m	≥ 2200
	Long Term	m	≥ 1100
Min. bending radius	Without Tension	mm	$10.0 \times \text{Cable-} \phi$
	Under Maximum Tension		$20.0 \times \text{Cable-} \phi$
Temperature range (°C)	Installation	°C	-20~+60
	Transport&Storage		-40~+70
	Operation		-40~+70

Fibre & Loose Tube Colours

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

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	
@ 1310 nm	$\leq 0.36 \text{ dB/km}$
@ 1383 nm	$\leq 0.32 \text{ dB/km}$
@ 1550 nm	$\leq 0.22 \text{ dB/km}$
@ 1625 nm	$\leq 0.30 \text{ dB/km}$
Point discontinuity	$\leq 0.05 \text{ dB}$
Cable cut-off wavelength	$\leq 1260 \text{ nm}$
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	$\leq 0.092 \text{ ps}/(\text{nm}^2 \cdot \text{km})$
Chromatic dispersion	
@ 1288 ~ 1339 nm	$\leq 3.5 \text{ ps}/(\text{nm} \cdot \text{km})$
@ 1271 ~ 1360 nm	$\leq 5.3 \text{ ps}/(\text{nm} \cdot \text{km})$
@ 1550 nm	$\leq 18 \text{ ps}/(\text{nm} \cdot \text{km})$
@ 1625 nm	$\leq 22 \text{ ps}/(\text{nm} \cdot \text{km})$
PMD _Q (Quadrature average*)	$\leq 0.2 \text{ ps}/\text{km}^{1/2}$
Mode field diameter @ 1310 nm	$9.2 \pm 0.4 \text{ } \mu\text{m}$
Core / Clad concentricity error	$\leq 0.5 \text{ } \mu\text{m}$
Cladding diameter	$125.0 \pm 0.7 \text{ } \mu\text{m}$
Cladding non-circularity	$\leq 1.0\%$
Primary coating diameter	$245 \pm 10 \text{ } \mu\text{m}$

Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km

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 $\pm 1\%$.

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