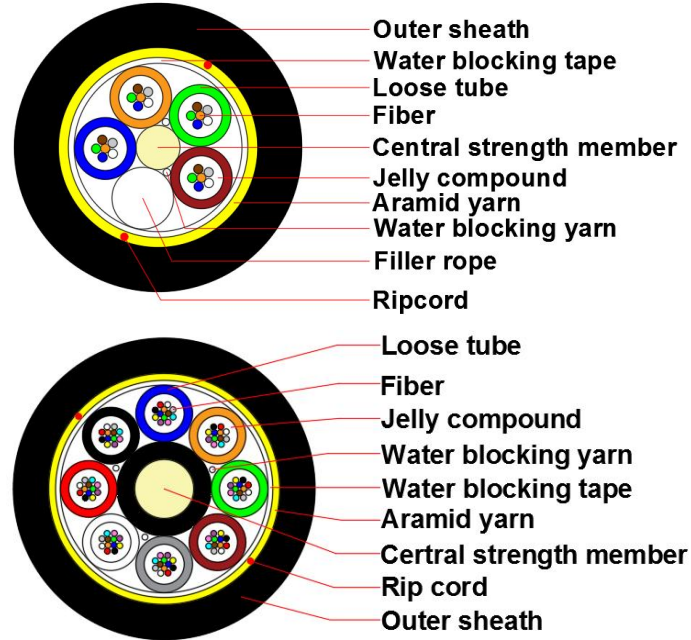


All-media Self-supporting Optical Cable (ADSS)

Cable Design



Technical Data

No. of cable		2	4	6	12	24	36	48	60	96	
Design (Strength Member+ Tube & Filler)		1+5								1+8	
Fiber type		G.652D									
Central Strength Member	Material	FRP									
	Diameter (± 0.05)	1.5								2.1	
Additional Sheath	Material	—								PE	
	Size (± 0.1)	—								3.4	
Loose Tube	Material	PBT									
	Diameter (± 0.05)	1.8						2.1			
	Thickness (± 0.05)	0.30						0.35			
	MAX.NO./per	2	4	6	6	6	12				
	NO.	1	1	1	2	4	3	4	5	8	
Filler Rope	Material	PP									
	Diameter	1.8						2.1	2.1	—	—
	NO.	4	4	4	3	1	2	1	—	—	
Water Blocking Layer(Material)		Water Blocking Yarn & Water Blocking tape									
Additional Strength Member(Material)		Aramid Yarn									
Rip cord	Material	Nylon									

Outer Sheath	Material	HDPE		
	Thickness	1.7 ± 0.1		
	color	Black.		
Cable Diameter(±0.2mm)		9.4	10.0	11.9
Cable Weight(±10.0kg/km)		65	80	105
Attenuation coefficient	1310nm	≤0.35		
	1550nm	≤0.21		
Tensile Strength(N)		2500		
Crush Resistance (N/100mm)		1000		
Span (m)		60		
Wind speed (km/h)		100		
Icing (mm)		0		
Sag (m)		1.2		
Min. bending radius (mm)	Without Tension	10.0×Cable-φ		
	Under Maximum Tension	20.0×Cable-φ		
Temperature range (°C)	Installation	-20~+60		
	Transport &Storage	-40~+70		
	Operation	-40~+70		

Fiber & Loose Tube Color

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	≤ 0.35 dB/km
@ 1383 nm	≤ 0.32 dB/km
@ 1550 nm	≤ 0.21 dB/km
@ 1625 nm	≤ 0.35 dB/km
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm ² .km)
Chromatic dispersion	≤3.5 ps/(nm. km)
@ 1288 ~ 1339 nm	≤5.3 ps/(nm. km)

@ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm	≤18 ps/(nm. km) ≤22 ps/(nm. km)
PMD _Q (Quadrature average*)	≤0.2 ps/km ^{1/2}
Mode field diameter @ 1310 nm	9.2±0.4 μm
Core / Clad concentricity error	≤ 0.5 μm
Cladding diameter	125.0 ± 0.7 μm
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 10 μm
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:2500N - Length of cable: about 50m	- Fiber strain ≤ 0.33% - Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: 2200N/100mm - Load time: 1min	- Loss change ≤ 0.1dB@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 IEC 60794-1-2-F1	- Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycle: 2	- Loss change ≤ 0.1 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 with zero meter. The accuracy of the measurement of length marking shall be held within the limits of ±1%.

- a) Manufacturer's name
- b) Type of wire
- c) Year and month of manufacture
- d) Length marking each meter along the wire