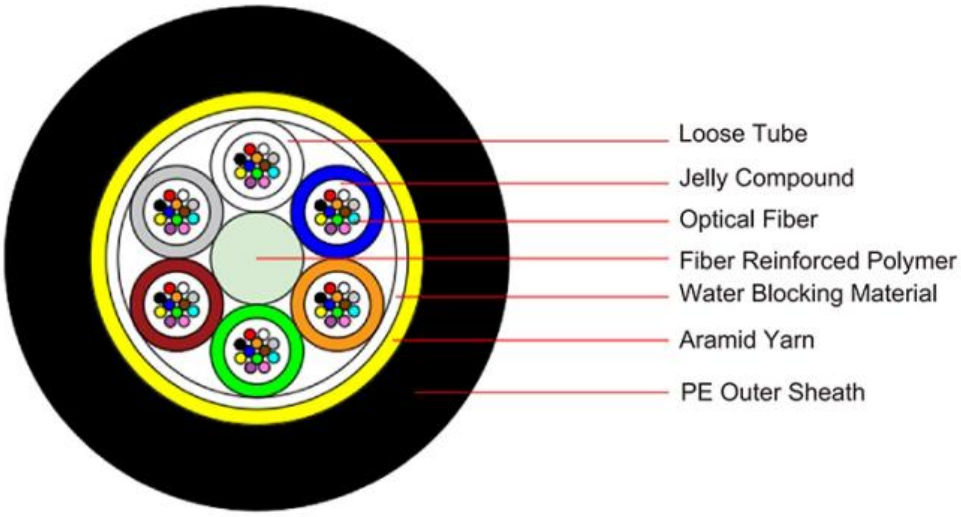
All-media Self-supporting single Sheath ADSS-I fiber optic cable

Cable Design



Technical data

No. of cable		2-30	32-60	62-72	74-96	98-120	122-144
Fiber Model		G.652D	G.652D	G.652D	G.652D	G.652D	G.652D
Central Strength Member	Material	FRP	FRP	FRP	FRP	FRP	FRP
	Diameter（±0.05）mm	1.5	1.5	2.1	2.1	2.1	2.1
Loose Tube	Material	PBT	PBT	PBT	PBT	PBT	PBT
	Diameter（±0.1）mm	1.8	2.1	2.1	2.1	2.1	2.1
	Thickness（±0.05）mm	0.3	0.35	0.35	0.35	0.35	0.35
Water Blocking layer（Material）		Water Blocking Yarn&Water Blocking Tape	Water Blocking Yarn&Water Blocking Tape	Water Blocking Yarn&Water Blocking Tape	Water Blocking Yarn&Water Blocking Tape	Water Blocking Yarn&Water Blocking Tape	Water Blocking Yarn&Water Blocking Tape
Strength Member（Material）		Aramid yarn	Aramid yarn	Aramid yarn	Aramid yarn	Aramid yarn	Aramid yarn
Outer Sheath	Material	MDPE	MDPE	MDPE	MDPE	MDPE	MDPE
	Thickness（±0.1）mm	1.7	1.7	1.7	1.7	1.7	1.7
Cable Diameter（±0.2）mm		9.4	10	10.6	11.9	13.4	14.9
Cable Weight（±10）kg/km		66	75	83	105	135	166
Temperature range（℃）	Installation	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60
	Transport&Storage	-40~+70	-40~+70	-40~+70	-40~+70	-40~+70	-40~+70
	Operation	-40~+70	-40~+70	-40~+70	-40~+70	-40~+70	-40~+70

Fibre 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

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 @ 1383 nm @ 1550 nm @ 1625 nm	 ≤ 0.35 dB/km ≤ 0.35 dB/km ≤ 0.21 dB/km ≤ 0.24 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)
PMD_Q (Quadrature average*)	≤0.2 ps/km$^{1/2}$
Mode field diameter @ 1310 nm	9.2±0.4 um
Core / Clad concentricity error	≤ 0.6um
Cladding diameter	125.0 ± 1 um
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 10 um
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0℃~ +70℃ @ 1310 & 1550nm	≤ 0.1 dB/km

Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-2-E1	- Load: 4800N - 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: 2200/100mm - 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 IEC60794-1-22-F1	- Temperature step: +20℃→-40℃→+70℃ →+20℃ - 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 whit zero meter. The accuracy of the measurement of lenth 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