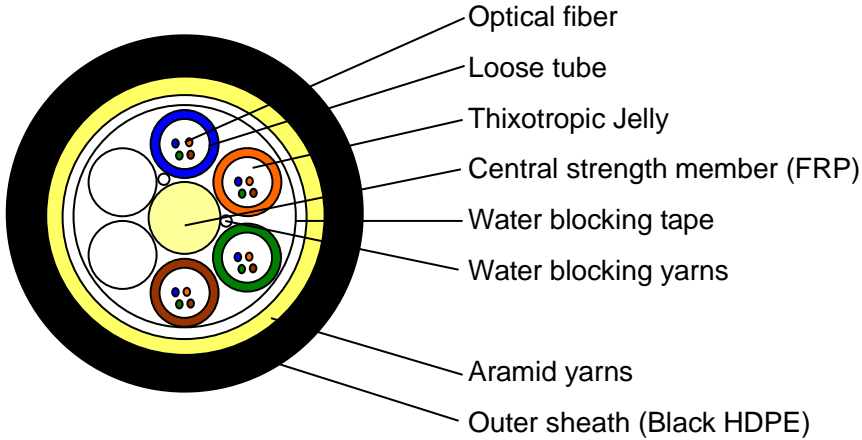


48-Fiber ADSS Single mode G657



Optical Fiber

Category	Description		Specifications
			G.657A2
Optical Specifications	Attenuation	@1310nm	≤0.36dB/km
		@1550nm	≤0.22dB/km
	Attenuation vs. Wavelength	@1285~1330nm relative to@1310	≤0.08 dB/km
		@1525~1575nm relative to@1550	≤0.05 dB/km
	Zero Dispersion Wavelength		1300~1324nm
	Zero Dispersion Slope		≤0.092ps/(nm ² .km)
	Dispersion	@1310nm	≤3.5 ps/nm.km
		@1550nm	≤18.0 ps/nm.km
		@1625nm	≤22.0 ps/nm.km
	Polarization Mode Dispersion(PMD)		≤0.2ps/km ^{1/2}
Cable Cutoff Wavelength(λ _c)		≤1260nm	
Effective Group Index of Refraction	@1310nm	1.466	
	@1550nm	1.467	

Geometric Specifications	Mode Field Diameter	@1310nm	8.6±0.4μm
	Cladding Diameter		125±0.7μm
	Cladding Non-Circularity		≤0.7%
	Coating Diameter		243±7μm
	Coating/Cladding Concentricity Error		≤8μm
	Core/Cladding Concentricity Error		≤0.5μm
Macro-bend Induced Attenuation	R15mm/10turns	@1550nm	≤0.03 dB
		@1625nm	≤0.1 dB
	R10mm/1turns	@1550nm	≤0.1 dB
		@1625nm	≤0.2 dB
	R7.5mm/1turns	@1550nm	≤0.5 dB
		@1625nm	≤1.0 dB
Mechanical Specifications	Proof Test level		≥1.0%
	Fiber Curl Radius		≥4.0m
	Peak Coating Strip Force		1.3~8.9N

Cable type		48
element	--	6
Central Strength Member	Material	FRP
Loose Tube	Material	Polybutelene Terephthalate (PBT)
	Fibers/Tube	12
Filling compound in loose tube	Material	Thixotropic jelly
Water blocking	Material	Water blocking yarn and tape
Strength Member	Material	Aramid yarns
Outer Sheath	Material	Black HDPE
	Thickness	Norminal: 1.7mm
Outer Diameter	mm (±5%)	10.9
Cable Weight	kg/km(Approx.)	94
Short term tensile	N	2700

Fiber coding

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

Identification of optical tube

No. of tube	1	2	3	4	5	6
Color of tube	Blue	Orange	Green	Brown	Grey	White

Make-up of cable, No. of Fibers in each Tube

No. of Fibers	No. of Tube		1	2	3	4	5	6
48	4	Tube color	Blue	Orange	Green	Brown	F	F
		No. of fiber	12	12	12	12		

Note: "F" means the white filler

Test Requirements

No	Item	Test standard	Method	Acceptance criteria
1	Tensile test	IEC-60794-1-E1	-Max. Tensile strength -Sample length:50 meters -Time: 10minutes;	-Attenuation increase \leq 0.10dB
2	Crush test	IEC-60794-1-E3	-Load:1000N -Time: 5minutes -Length: 100mm - Position: One point and one time	-No splits or cracks in the outer jacket; -Attenuation increase $<$ 0.10dB
3	Impact test	IEC-60794-1-E4	-Impact energy: 200g - Height:1 meter -Impact points: 1 --Number of impacts: 5	-No splits or cracks in the outer jacket -Attenuation increase \leq 0.10dB(after the test)
4	Torsion test	IEC-60794-1-E7	-1m cable length with 150N weight	- No splits or cracks in

			-±180°, 10 cycles	the outer jacket -Attenuation increase ≤0.10dB(after the test)
5	Repeated bending	IEC-60794-1-E6	-Radius=25xcable outer diameter -1m cable length with 150N weight,25 cycles	- No splits or cracks in the outer jacket -Attenuation increase ≤0.10dB(after the test)
6	Temperature cycling test	IEC-60794-1-F1	-Temperature step: +20°C→-20°C→+70°C→-20°C→+70°C→+20°C -Time per each step: 12 hrs -Number of cycles: 2 cycles	-Attenuation variation for reference value(the attenuation to be measured before test at +20±3°C) ≤0.10dB/km,
7	Cable bending test	IEC 60794-1-E11B	-Diameter of mandrel : 25xdiameter of cable - Number of cycles:1 cycle	Change of attenuation shall not be greater than 0.1dB. No fiber break and no cable damage.
8	Water penetration test	IEC-60794-1-F5	-Water height: 1m -Sample length:3m -Duration of test: 24hrs	-No water leakage at the end of the sample
9	Drip test	IEC-60794-1-E14	-Five 0.3m samples suspended vertically in a climate chamber, raised temperature to +70°C	-No filling compound shall drip from tubes after 24 hr

Ordering Information:

Part Number	Description
NEW-9440048-G657	48-Fiber ADSS Single mode G657