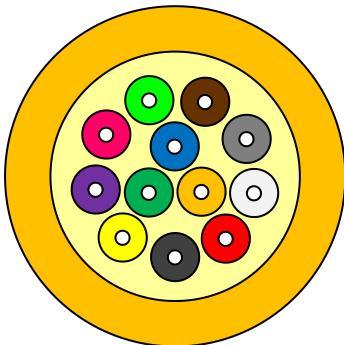


Riser-12 G.657A2

Cable Design

The cable is designed for use in Fiber-To-The-Home (FTTH) application. It is to be installed indoor (within the building), through access, such as trunking, conduit and riser to the nearest access point of the customer or to be installed at the riser (vertical).



- **900um Tight buffered fiber:** LSZH material, containing 1 fiber.
- **Reinforcement member:** Aramid yarns.
- **Outer Sheath:** LSZH, yellow

Cable Specification

Fibers core		12
Nominal Cable Diameter	mm	6.5±0.5
Tensile Max	N	600
Crush Max	N/10cm	500

Cable Application

Temperature Range		Minimum Bend Radius	
Storage	-20~+60°C	Load	20×D
Operation	-10~+60°C	Unload	10×D

Main Mechanical and Environmental Characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	600N,5 min	$\Delta\alpha \leq 0.1\text{dB/km}$ after test, no damage
Crush	IEC 60794-1-2-E3	500N,1min	$\Delta\alpha \leq 0.1\text{dB/km}$ after test, no damage
Impact	IEC 60794-1-2-E4	1N.m, R=12.5mm, 3points	$\Delta\alpha \leq 0.1\text{dB/km}$ after test, no damage
bending	IEC 60794-1-2-E11	20D, 6turns, 10cycles	$\Delta\alpha \leq 0.1\text{dB/km}$ after test, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20D, 40N, 25cycles	$\Delta\alpha \leq 0.1\text{dB/km}$ after test, no damage
Torsion	IEC 60794-1-2-E7	20N, 1m, +/-180°	$\Delta\alpha \leq 0.1\text{dB/km}$ after test, no damage

Cabled Fiber Performance

G.657 A2 fiber characteristics		
Optics specifications		
Attenuation	@1310nm	≤0.340dB/km
	@1383nm	≤0.340dB/km
	@1550nm	≤0.200dB/km
	@1625nm	≤0.240dB/km
Attenuation(After cable)	@1310nm	≤0.40dB/km
Attenuation(After cable)	@1550nm	≤0.30dB/km
Uniformity of attenuation at 1310nm		≤0.05dB
Uniformity of attenuation at 1550nm		≤0.05dB
Cable cut-off wavelength (λ_{cc})		≤1260nm
Zero-Dispersion wavelength		1300nm~1324nm
Zero-Dispersion slope		≤0.092ps/(nm ² ·km)
Absolute value of dispersion at 1288nm~1339nm		≤3.5ps/(nm·km)
Absolute value of dispersion at 1271nm~1360nm		≤5.3ps/(nm·km)
Dispersion at 1550nm		≤18ps/(nm·km)
Dispersion at 1625nm		≤23ps/(nm·km)
Mode field diameter (MFD) at 1310nm		8.60±0.4μm
Mode field diameter (MFD) at 1550nm		9.4~10.4μm
Polarization mode dispersion (PMD) Fiber		≤0.125ps/km ^{1/2}
Polarization mode dispersion (PMD) Cable		≤0.200ps/km ^{1/2}
PMD coefficient	M	20 cables
	Q	0.01%
	PMD _Q	≤0.20ps/km ^{1/2}
Geometrical characteristics		
Cladding diameter		125±0.7μm
Cladding non-circularity		≤0.7%
Core/cladding concentricity error		≤0.5μm
Fiber diameter with coating (uncolored)		245±10μm
Cladding/coating concentricity error		≤12.0μm
Tension test		100kpsi or 0.69GPa
Mechanical characteristics		
Macrobend loss at 1550nm	R=15mm,10 turns	≤0.03dB
	R=10mm,1turn	≤0.10dB
	R=7.5mm,1turn	≤0.5dB
Macrobend loss at 1625nm	R=15mm,10 turns	≤0.10dB
	R=10mm,1turn	≤0.20dB
	R=7.5mm,1turn	≤1.0dB

Fiber & Tube Color

Color Identification of Fiber

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

* If the color number is more than 12, the tube color code will be marked black ring and repeated again.

Sheath Marking

The outer sheath is marked in 1 meter intervals as follows:

According to Customer's Requirements

Delivery Lengths

Standard delivery length will be 2km or customer's requirements.