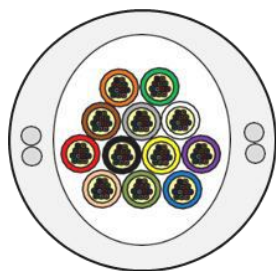


Cable Design

Optical Fiber Cable-Dielectric-Single Sheath-G675A1 Fiber



- **Micro Module:** thermoplastic material, containing 12 fibers, with dry core.
- **Strength member:** 4 GFRP inside the outer sheath.
- **Outer Sheath:** LSZH, White.
- **Flame Retardant Class:** CPR Dca s1b d2 a1.

Cable Specification

Fiber Cores		24	48	72	96	144	192	288
Fibers per module		12						
No. of modules		2	4	6	8	12	16	24
Nominal Cable Diameter	mm	7.0	8.0	10.0	11.0	11.0	12.0	13.5
Cable weight	Kg/km	50	60	85	107	114	139	168
Max Tensile load	daN	120	155	250	250	250	300	300
CPR Class		Dca s1b d2 a1						

Cable Application

Temperature Range		Minimum Bend Radius	
Transportation & Storage	-30~+60°C	Load	20×D
Operation	-30~+60°C	Unload	10×D

Main Mechanical and Environmental Characteristic

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	Max. Tensile load 5min	$\Delta\alpha \leq 0.1\text{dB}$, no damage
Crush	IEC 60794-1-2-E3	20daN/cm, 5min	$\Delta\alpha$ reversible, no damage
Bending	IEC 60794-1-2-E11	R=10D, 4 turns, 3cycles	$\Delta\alpha$ reversible, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20D, 40N, 25cycles	$\Delta\alpha$ reversible, no damage
Impact	IEC 60794-1-2-E4	1N.m, R=12,5mm, 3points	$\Delta\alpha$ reversible, no damage
Torsion	IEC 60794-1-2-E7	20N, 1m, +/-180°	$\Delta\alpha$ reversible, no damage
Temperature Cycling	IEC 60794-1-2-F1	-30~+60°C, 2cycles 6h	$\Delta\alpha \leq 0.05\text{dB/km}$, no damage

Fiber and Tube Color

Color Identification of Fiber

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

Color Identification of Tube

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

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

Cabled Fiber Performance (G.657A1)

Characteristics		Acceptance Value
Attenuation	@1310nm	≤0.35dB/km
	@1383nm	≤0.34dB/km
	@1490nm	≤0.24dB/km
	@1550nm	≤0.21dB/km
	@1625nm	≤0.23dB/km
Mode Field Diameter	@1310nm	8.8±0.4μm
Dispersion	@1300 +30/-15nm	≤3.5ps/(nm·km)
	@1550nm	≤17ps/(nm·km)
	@1625nm	≤22ps/(nm·km)
Polarization Mode Dispersion PMD	Max. individual	≤0.20ps/km ^{1/2}
	Linked design	≤0.06ps/km ^{1/2}
Zero-Dispersion Wavelength		1300-1324nm
Zero-Dispersion Slope		≤0.092ps/(nm ² ·km)
Cable Cutoff Wavelength λ _{cc} (nm)		≤1260nm
Cladding Diameter		125±0.7μm
Macrobend loss	30mm radius, 10 turn, @1550	≤0.25dB
	30mm radius, 10 turn, @1625	≤0.10dB
	20mm radius, 1 turn, @1550	≤0.75dB
	20mm radius, 1 turn, @1625	≤1.5dB
Cladding Non-circularity		≤0.7%
Core/Cladding Concentricity Error		≤0.5μm
Fiber Diameter with coating (un-colored)		245±10μm
Fiber Diameter with coating (colored)		250±15μm
Core/cladding concentricity error		≤0.5μm
Proof Test		≥0.69GPa (100kpsi)
Dynamic Fatigue		≥20

Sheath Marking, Delivery Length

The outer sheath is marked in 1 meter intervals as follows: **In Accordance with Custom's Requirement**

Standard delivery length will be 4 km with -1+3% tolerance.