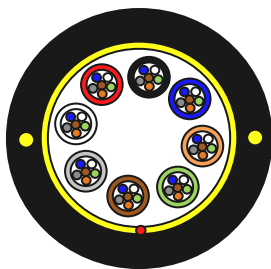


Aerial Module Optical Fiber Cable G.652D 50m span

Cable Design

Micro-Module Optical Fiber Cable-Dielectric-Single Sheath-G.652D



- **Micro Module:** thermoplastic material, containing 12 fiber.
- **Aramid yarns:** reinforcement members
- **Strength member:** GFRP inside the outer sheath.
- **Outer Sheath:** Black HDPE.

Cable Specification

| Cable Cores | | 12 | 48 | 72 | 96 | 144 |
|----------------------------------|--------------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| No. of Module | | 1 | 4 | 6 | 8 | 12 |
| Fibers per Module | | 12 | 12 | 12 | 12 | 12 |
| Part numbers (G.652D) | | FH-OC-HM-1x12E9-10 | FH-OC-HM-4x12E9-20 | FH-OC-HM-6x12E9-20 | FH-OC-HM-8x12E9-20 | FH-OC-HM-12x12E9-20 |
| Module- Φ | mm | 1.2 | | | | |
| GFRP- Φ | mm | 1.0 | 1.4 | | | |
| Outer sheath | mm | 1.8 | 2.2 | | | |
| Nominal Cable Diameter | mm | 6.5 \pm 0.5 | 8.5 \pm 0.5 | 9.5 \pm 0.5 | 10.5 \pm 0.5 | 11.5 \pm 0.5 |
| Coefficient of Thermal Expansion | | 3.9E-6 | 3.6E-6 | 3.7E-6 | 4.0E-6 | 4.3E-6 |
| Modulus of Elasticity | MPa (N/mm ²) | 8000 | 8500 | 8000 | 8000 | 8500 |
| Nominal Cable Weight | Kg/km | 65 | 68 | 75 | 90 | 115 |

Cable Application

| Temperature Range | | Minimum Bend Radius | |
|--------------------------|-----------|---------------------|------|
| Transportation & Storage | -40~+70°C | Load | 20×D |
| Operation | -20~+70°C | Unload | 10×D |

Main Mechanical and Environmental Characteristic

| Test | Test Standard | Specified Value | Acceptance Criteria |
|---------------------|------------------|---------------------------------------|--|
| Tensile | IEC 60794-1-2-E1 | 1000N(12), 5min 2000N(48~144),5min | $\Delta\alpha\leq 0.05\text{dB}$, fiber strain $\leq 0.6\%$ |
| Crush | IEC 60794-1-2-E3 | 1000N/10cm, 5min | $\Delta\alpha$ reversible, no damage |
| Repeated Bending | IEC 60794-1-2-E6 | R=20D, 40N, 20cycles | $\Delta\alpha$ reversible, no damage |
| Impact | IEC 60794-1-2-E4 | 3J, R=300mm, 3times | $\Delta\alpha$ reversible, no damage |
| Torsion | IEC 60794-1-2-E7 | 40N, 10cycles, +/-360° | $\Delta\alpha$ reversible, no damage |
| Temperature Cycling | IEC 60794-1-2-F1 | -20~+60°C, 2cycles | $\Delta\alpha\leq 0.05\text{dB/km}$, no damage |

Aerial Module Optical Fiber Cable G.652D 50m span

Cabled Fiber Performance (G.652D)

| Characteristics | | Acceptance Value |
|---|-----------------|--------------------------------|
| | @1310nm | ≤035dB/km |
| | @1550nm | ≤0.22dB/km |
| Mode Field Diameter | @1310nm | 9.2±0.4μm |
| | @1550nm | 10.4±0.5μm |
| Dispersion | @1300 +30/-15nm | ≤3.5ps/(nm·km) |
| | @1550nm | ≤18.0ps/(nm·km) |
| | @1625nm | ≤22ps/(nm·km) |
| Zero-Dispersion wavelength | | 1300nm~1324nm |
| Zero-Dispersion slope | | ≤0.092ps/(nm ² ·km) |
| Cable cutoff wavelength λ _c (nm) | | ≤1270nm |
| Cladding diameter | | 125±1.0μm |
| Cladding non-circularity | | ≤1.0% |
| Core/cladding concentricity error | | ≤0.6μm |
| Fiber diameter with coating (uncoated) | | 242±5μm |
| Cladding/coating concentricity error | | ≤12.0μm |
| Proof stress | | ≥0.69GPa(100kpsi) |
| Dynamic stress corrosion susceptibility parameter (typical value) | | ≥20 |

Fiber and Tube Color

Color Identification of Fiber

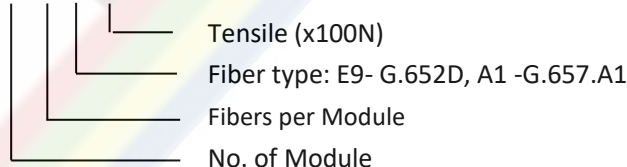
| No | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-------|-----|-------|--------|------|-------|-------|------|--------|-------|--------|------|------|
| Color | Red | Green | Yellow | Blue | Brown | White | Grey | Violet | Black | Orange | Aqua | Pink |

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 |

Part Number

FH-OC-HM-X*12YY-ZZ



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 1 or 2km.