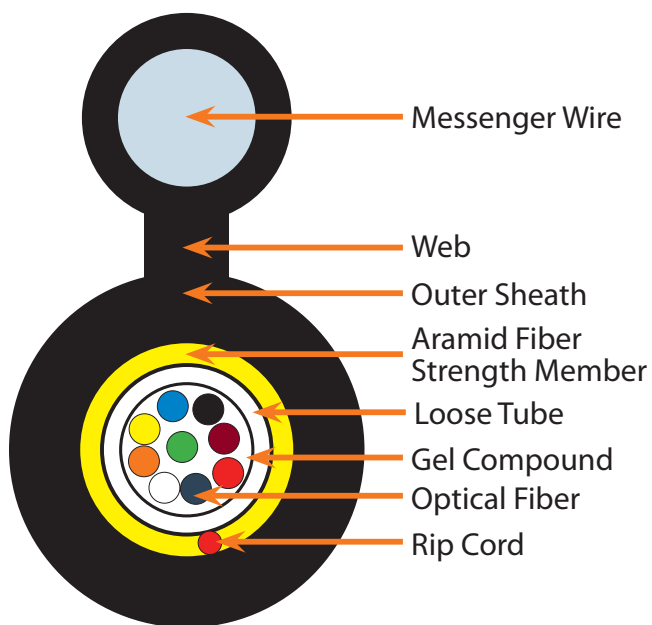




Aerial Self-Supporting Messenger Fiber Optic Cable

Product Specifications

| Parameter | | Specification | |
|-----------------------------------|-----------------------------|------------------------------------|------------------------|
| # of Fibers | | 2, 4, 6, 8, 10, 12 | 14, 16, 18, 20, 22, 24 |
| Fiber Type | | G.652D | |
| Loose Tube | Material | Polybutylene Terephthalate (PBT) | |
| | Diameter (± 0.06) mm | 2.0mm | 2.8mm |
| | Thickness (± 0.03) mm | 0.3mm | 0.4mm |
| Messenger Wire | Material | Galvanized Steel Wire | |
| | Size (± 0.3 mm) | 1.2mm | |
| | Sheath (± 0.1 mm) | 0.65mm | |
| | Diameter (± 0.2 mm) | 3.6mm | |
| Web | Material | Medium-density Polyethylene (MDPE) | |
| | Diameter (± 0.2 mm) | 1.0 x 1.5mm | |
| Strength Member | Material | Aramid Yarn | |
| Outer Sheath | Material | Medium-density Polyethylene (MDPE) | |
| | Thickness (± 0.1 mm) | 0.65mm | |
| Cable Diameter (± 0.5 , WxH) | | 3.6 x 6.3mm | 4.4 x 7.1mm |
| Cable Weight (± 2.0 Kg) | | 24Kg | 30Kg |
| Min. Bending Radius | Without Tension | 12.5 x Cable diameter | |
| | Maximum Tension | 25.0 x Cable diameter | |
| Temperature Range | Installation | -20 ~ +60°C (-4 ~ 140°F) | |
| | Transport / Storage | -40 ~ +70°C (-40 ~ 158°F) | |
| | Operation | -40 ~ +70°C (-40 ~ 158°F) | |



FEATURES:

- Figure 8-shaped self-supporting high tensile strength longitudinal steel messenger wire gives better cable resistance to tensile and lateral forces
- Additional strength provided by aramid fiber surround
- Full section water blocking ensures good water and moisture resistance
- Loose tube filled with gel compound for critical fiber protection
- Easy to install overhead, low cost
- Polyethylene sheath for UV resistance
- Product life up to 30 years

APPLICATIONS:

- Core Network, Metropolitan Area Network, and Access Network Outdoor Optical Cable
- Working temperature: -40°~+70° (-40 ~ 158°F)
- Bend radius: Static 12.5 times the cable diameter
- Dynamic 25 times optical cable diameter

MASM-X-SM-D

└ Fiber Counts: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

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Aerial Self-Supporting Messenger Fiber Optic Cable

Product Specifications

Specification of Singlemode Optical Fiber (G.652.D)

| Specification | Parameter |
|--|--|
| Fiber Type / Material | Singlemode / Doped Silica |
| Attenuation Coefficient | @1310nm: ≤0.35dB/Km @1383nm: ≤0.32dB/Km @1550nm: ≤0.21dB/Km @1625nm: ≤0.25dB/Km |
| Point Discontinuity | ≤0.05 dB |
| Cable Cut-off Wavelength | ≤1260nm |
| Zero-dispersion Wavelength | 1300 ~ 1324nm |
| Zero-dispersion Slope | ≤ 0.092 ps/(nm ² .km) |
| Chromatic Dispersion | @1288 ~ 1339nm: ≤3.5ps/(nm.Km) @1271 ~ 1360nm: ≤5.3ps/(nm.Km) @1550nm: ≤18ps/(nm.Km) @1625nm: ≤22ps/(nm.Km) |
| PMD _Q (Quadrature average*) | ≤ 0.2 ps/Km ^{1/2} |
| Mode Field Diameter @ 1310nm | 9.2 ±0.4 μm |
| Core / Clad Concentricity Error | ≤0.5μm |
| Cladding Diameter | 125.0 ±0.7μm |
| Cladding Non-circularity | ≤1.0% |
| Primary Coating Diameter | 245 ±10μm |
| Proof Test Level | 100kpsi (=0.69 Gpa), 1% |
| Temperature Dependence | 0°~ +70°C @ 1310 & 1550nm: ≤0.1dB/Km |

| Specification | Parameter | |
|----------------------------|------------|----------------|
| Allowable Tensile Strength | Short Term | 1000 N |
| | Long Term | 400 N |
| Allowable Crush Resistance | Short Term | 2000 (N/100mm) |
| | Long Term | 1000 (N/100mm) |

Mechanical & Environmental Performance Testing

| Test | Test Method | Acceptance Condition |
|--|--|--|
| Tensile Strength IEC 794-1-2-E1 | Load: Short term tension Length of cable: About 50m | Fiber strain ≤0.20% Loss change ≤0.1 dB @1550 nm No fiber break and no sheath damage |
| Crush Test IEC 60794-1-2-E3 | Load: Short term crush Load time: 1min | Loss change ≤0.05dB@1550nm No fiber break and no sheath damage. |
| Impact Test IEC 60794-1-2-E4 | Points of impact: 3 Times per point: 1 Impact energy: 5J | Loss change ≤0.1dB@1550nm No fiber break and no sheath damage. |
| Temperature Cycling Test YD/T901-2001-4.4.4.1 | Temperature step: +20°C -> -40°C -> +70°C -> +20°C Time per each step: 12 hrs Number of cycles: 2 | Loss change ≤0.05 dB/km@1550 nm No fiber break and no sheath damage |

MASM-X-SM-D

└─ Fiber Counts: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

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