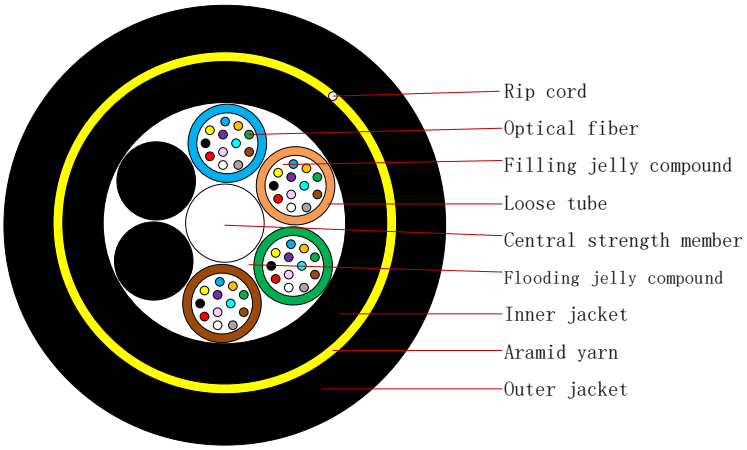
MAYAFIBER

MODEL NO : MYFADSS-750MAT25KV-48C-SM-ODDJ-BK-05

# Cable specification

1. (Optical cable type): ADSS

2. (Cross section of cable):




3. (Optical fiber type and properties)

| (Item) | Detail | Specification |
|---|---|---|
| | | G. 652D |
| Mode field diameter at wavelength=1310nm | Range of nominal values | 8.6-9.5μm |
| | Tolerance | ±0.7 μm |
| Cladding diameter | Nominal | 125.0 μm |
| | Tolerance | ±0.7 μm |
| Core concentricity error | Maximum | 0.8 μm |
| Cladding non-circularity | Maximum | 1.0% |
| Cable cut-off wavelength | $\lambda_{cc}$, Maximum | 1260 |
| Macrobend loss | Mendrel Diameter | 50 mm |
| | Number of turns | 100 |
| | Maximum at 1310 nm and 1550 nm | 0.03 dB |
| Proof stress | Minimum | 0.69 Gpa |
| Chromatic dispersion coefficient | Maximum at 1310nm | ≤2.0 ps/nm.km |
| | Maximum at 1550 | ≤18.0 ps/nm.km at 1550 nm |
| Zero Dispersion Wavelength | $\lambda_{0min}$ | 1300 nm |
| | $\lambda_{0max}$ | 1324 nm |
| Zero Dispersion Slope | $S_{0max}$ | 0.092 ps/nm$^2$ x km |
| Attenuation coefficient | Maximum at 1310 nm | 0.35 dB/km |
| | Maximum at 1550 nm | 0.21 dB/km |
| PMD coefficient, *complies with IEC 60794-3:2001, section 5.5, Method 1 (Sep,2001) | M | 20 cables |
| | Q | 0.01% |
| | Maximum $PMD_Q$ | 0.2 ps/√km |

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4. (Dimensions of cable constructions)

| Fiber count | Structure | Fibers per tube | Loose tube diameter (mm) | CSM diameter /pad diameter (mm) | Nominal thickness of Inner jacket (mm) | Nominal thickness of outer jacket (mm) | Cable diameter(mm) | Cable weigh (kg/km) |
|---|---|---|---|---|---|---|---|---|
| 48 | 1+6 | 12 | 2.5±0.1 | 2.8/2.8 | 0.9 | 1.7 | 14.2±0.5 | 165 |

5. (Cable performance)

| (Item) | | (Parameters) | | |
|---|---|---|---|---|
| Fiber | Color | Full color spectrum（Natural color instead of white） | | |
| Loose tube | Material | PBT | | |
| | Color | Full color spectrum | | |
| Filler | Material | PE | | |
| | Color | Black | | |
| CSM | Material | FRP | | |
| Inner jacket | Material | MDPE | | |
| | Color | Black | | |
| Non-metal reinforced pieces | Material | Aramid yarn | | |
| Outer jacket | Material | AT-25KV | | |
| | Color | Black | | |
| Min. bending radius | Static | 12.5 times cable diameter | | |
| | Dynamic | 25 times cable diameter | | |
| Tensile performance | Core | RTS (N) | MAT (N) | EDS (N) |
| | 48 | 25700 | 11600 | 6400 |
| Crush | Short term | 3000N/100mm | | |
| Span(m) | 750 | | | |
| Sag(m) | 15 | | | |

6. (Environmental performance)

| (Item) | (Standard) | (Parameters) |
|---|---|---|
| Operation temperature | IEC 60794-1-2 F1 | -40℃～+70℃ |
| Water penetration | IEC 60794-1-2-F5 | Water level：1m ,sample：3m, After 24h，no water ingress at the end of the cable core. |

| TESTS OF OUTDOOR CABLE | | | |
|---|---|---|---|
| 1 | Tensile Test | IEC-60794-1-E1 | - Max. allowable pulling force: installation tensle; sample length: no less than 50 metres, time: 10 minutes;<br>- Fiber strain at max. load : max. 0.15%<br>- No damage to the outer jacker and inner elements.<br>- Reversible |
| 2 | Crush test | IEC-60794-1-E3 | - Load: short time crush strength, time: 5 minutes, length: 100 mm, number of tests: 3;<br>- No damage to the outer jacket and inner elements.<br>- Reversible |
| 3 | Impact test | IEC-60794-1-E4 | - Impact energy: 10J, impact points:3<br>- Number of impacts: 1<br>- No breakage of the optical fiber.<br>- No splits or cracks in the outer jacket.<br>- Attenuation increase ≤0.1dB, reversible. |
| 4 | Repeated bending test | IEC-60794-1-E6 | - 1m cable length, bending radius: 20 times cable's diameter, 25 cycles, duration of cycle: 2s.<br>- No damage to the outer jacket and inner elements.<br>Reversible. |
| 5 | Torsion test | IEC-60794-1-E7 | - 1m cable length, ±180 degrees, 5 cycles;<br>- No damage to the outer jacket.<br>- Attenuation increase ≤0.1dB, reversible. |
| 6 | Bending test | IEC-60794-1-E11 | - Diameter of mandrel: 20xD, number of turns/helix: 4 number of cycles:3,<br>- No damage to the outer jacket and inner elements (20°C).<br>- Reversible. |
| 7 | Temperature cycling test | IEC-60794-1-F1 | - Temperature step: +20°C→-40°C→+70°C→-40°C→+70°C→+20°C,<br>- Time per each step: 12 hrs,<br>- Number of cycles: 2 cycles<br>- There shall be no change in attenuation variation for reference value (the attenuation to be measured before test at +20±3°C – reversible. |
| 8 | Water penetration test | IEC-60794-1-F5 | - Water height: 1m, sample length: 3m, duration of test: 24 hrs.<br>- No water leakage at the end of the cable core. |
| | | | - Three 0.3m samples suspended vertically in a |

| | | | |
|---|---|---|---|
| 9 | Drip test | IEC-60794-1-E14 | climate chamber, raised temperature to +70°C. No filling compound shall drip from tubes after - 24hr. |

8.(Drum)

| (Cable type) | (Drum) | | | | |
|---|---|---|---|---|---|
| | Height (mm) | Width (mm) | Inner diameter (mm) | Length (km) | Drum type |
| ADSS | 1450 | 750 | 500 | 4 | Iron wood drum |
| ADSS | 1500 | 1000 | 600 | 5 | Iron wood drum |