

Central Loose Tube Armoured Cable

Application

- This specification covers the general requirements for 2-24F Central Loose Tube Armoured Cable

Features and Benefits

- Fibre count up to 24 core Aerial/Duct application
- Waterproof Layer Between the Steel Tape and Cable Core PE outer sheath with Corrugated Steel Tape
- Parallel Double Steel Wire as Strengthening Member Waterproofing Layer Proving Strong Water-Resistance Performance Excellent Anti-crush and Tensile Properties
- Flame retardant or LSZH jacket is available Comply to TIA/EIA568C-3 and ISO/IEC 11801 Economy choice

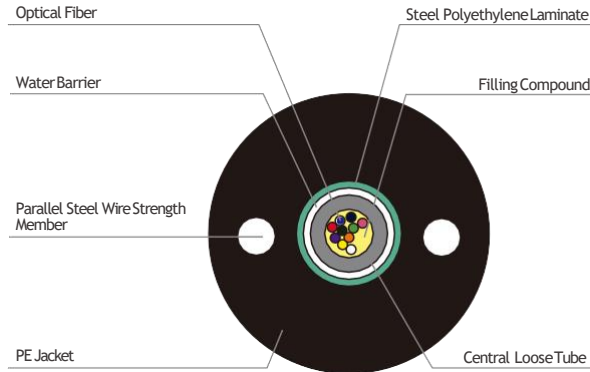
Fire Performance

| | |
|--|--|
| Flame Retardant | IEC 60332-1, IEC 60332-2, IEC 60332-3, BS EN 50265, BS EN 50266 |
| Fire Retardant | BS EN ISO 4589-3 Annex A (FT >= 280°C) |
| Low Smoke Capacity | IEC 61034 1/2, BS EN 50268-2 Annex B (>=60% Light Transmittance) |
| The Values for The Light Transmittance | BS EN 50268-2 |
| Oxygen Index Testing Method | BS EN ISO 4589-2, ASTM D-2863 |
| Halogen Free | IEC 60754-1/2, BS EN 50267-2-3 Annex A (pH >=4.3) |

Ordering Information:

Please contact atg for more detail and delivery times

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Fibre Specifications (Singlemode)

| Characteristics | G652D | G657A1 | G657A2 | |
|---|--------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Optical Characteristics | | | | |
| Attenuation | 1310nm | ≤ 0.40 dB/km | ≤ 0.40 dB/km | |
| | 1383nm* | ≤ 0.34 dB/km | ≤ 0.35 dB/km | |
| | 1460nm* | - | ≤ 0.25 dB/km | |
| | 1490nm* | - | ≤ 0.23 dB/km | |
| | 1550nm | ≤ 0.30 dB/km | ≤ 0.30 dB/km | |
| | 1625nm* | ≤ 0.23 dB/km | ≤ 0.23 dB/km | |
| Attenuation vs. Wavelength | 1285-1330nm* | ≤ 0.03 dB/km | ≤ 0.03 dB/km | |
| Max. α difference | 1525-1575nm* | ≤ 0.02 dB/km | ≤ 0.02 dB/km | |
| Dispersion coefficient | 1285-1340nm | $\geq -3.4 \leq 3.4$ ps/(nm. km) | $\geq -3.4 \leq 3.4$ ps/(nm. km) | - |
| | 1550nm | ≤ 18 ps/(nm. km) | ≤ 18 ps/(nm. km) | - |
| | 1625nm | ≤ 22 ps/(nm. km) | ≤ 22 ps/(nm. km) | - |
| Zero dispersion wavelength | | 1312 \pm 12 nm | 1300-1324 nm | 1300-1324 nm |
| Zero dispersion slope | | ≤ 0.091 ps/nm ² . km | ≤ 0.092 ps/nm ² . km | ≤ 0.092 ps/nm ² . km |
| Typical value | | 0.086 ps/nm ² . km | 0.086 ps/nm ² . km | 0.04 ps/nm ² . km |
| PMD | | | | |
| Maximum Individual Fibre | | ≤ 0.1 ps//km | ≤ 0.1 ps//km | ≤ 0.1 ps//km |
| Link Design Value(M=20,Q=0.01%) | | ≤ 0.06 ps//km | ≤ 0.06 ps//km | ≤ 0.06 ps//km |
| Typical value | | 0.04 ps//km | 0.04 ps//km | 0.04 ps//km |
| Cable cutoff wavelength λ_{cc} | | ≤ 1260 nm | ≤ 1260 nm | ≤ 1260 nm |
| Mode field diameter(MFD) | 1310nm | 8.7-9.5 μ m | 8.4-9.2 μ m | 8.4-9.2 μ m |
| | 1550nm | 9.9-10.9 μ m | 9.3-10.3 μ m | 9.3-10.3 μ m |
| Effective group index of refraction(Neff) | 1310nm | 1.466 | 1.466 | 1.466 |
| | 1550nm | 1.467 | 1.467 | 1.467 |
| Point discontinuities | 1310nm | ≤ 0.05 dB | ≤ 0.05 dB | ≤ 0.05 dB |
| | 1550nm | ≤ 0.05 dB | ≤ 0.05 dB | ≤ 0.05 dB |
| Geometrical Characteristics | | | | |
| Cladding diameter | | 125.0 \pm 0.7 μ m | 125.0 \pm 0.7 μ m | 125.0 \pm 0.7 μ m |
| Cladding non-circularity | | ≤ 1.0 % | ≤ 0.7 % | ≤ 0.7 % |
| Coating diameter | | 245.0 \pm 7 μ m | 245.0 \pm 5 μ m | 245.0 \pm 5 μ m |
| Coating-cladding concentricity error | | ≤ 12.0 μ m | ≤ 12.0 μ m | ≤ 12.0 μ m |
| Coating non-circularity | | ≤ 6.0 % | ≤ 6.0 % | ≤ 6.0 % |
| Core-cladding concentricity error | | ≤ 0.6 μ m | ≤ 0.5 μ m | ≤ 0.5 μ m |
| Curl(radius) | | ≥ 4 m | ≥ 4 m | ≥ 4 m |
| Delivery length | | 21 to 50.4 km/reel | 21 to 50.4 km/reel | 21 to 50.4 km/reel |

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Fiber Specifications (Multimode)

| Characteristics | 62.5/125 (OM1) | 50/125 (OM2) | OM3/OM4 | OM5 |
|---|--|--|--|------------------------------------|
| Geometry Characteristics | | | | |
| Core Diameter | 62.5±2.5 um | 50±2.5 um | 50±2.5 um | 50±2.5 um |
| Core Non-circularity | ≤5.0 % | ≤5.0 % | ≤5.0 % | ≤5.0 % |
| Cladding Diameter | 125.0±1.0 um | 125.0±1.0 um | 125.0±1.0 um | 125.050±1.0 um |
| Cladding Non-circularity | ≤1.0 % | ≤1.0 % | ≤0.6 % | ≤0.6 % |
| Coating Diameter | 245±7 um | 245±7 um | 245±7 um | 245±7 um |
| Coating/Cladding Concentricity Error | ≤10.0 um | ≤10.0 um | ≤10.0 um | ≤10.0 um |
| Coating Non-circularity | ≤6.0 % | ≤6.0 % | ≤6.0 % | ≤6.0 % |
| Core/Cladding Concentricity Error | ≤1.5 um | ≤1.5 um | ≤1.0 um | ≤1.0 um |
| Delivery Length | up to 17.6km/reel | up to 17.6km/reel | up to 8.8km/reel | up to 8.8 km/ reel |
| Optical Characteristics | | | | |
| Attenuation | 850nm | ≤3.5 dB/km | ≤3.5 dB/km | ≤3.5 dB/km |
| | 953nm* | - | - | ≤1.7 dB/km |
| | 1300nm | ≤1.5 dB/km | ≤1.5 dB/km | ≤1.5 dB/km |
| Overfilled Modal Bandwidth | 850nm | ≥200 MHz. km | ≥500 MHz. km | ≥3500 MHz. km |
| | 953nm | - | - | ≥1850 MHz. km |
| | 1300nm | ≥500 MHz. km | ≥500 MHz. km | ≥500 / ≥500 MHz. km |
| Effective Modal Bandwidth | 850nm | - | - | ≥2000 / ≥4700 MHz. km |
| | 953nm | - | - | - |
| | | | | ≥2470 MHz. km |
| 10Gb/sWDM | - | - | -100/150 m | 150 m |
| 40Gb/sWDM | - | - | 300/500 m | 440 m |
| 40GBASE-SR4 / 100GBASE SR10 | 850nm | - | 1000/1100 m | 200 m |
| 10GBASE-SR | 850nm | - | 150 m | - |
| 1000BASE-SR | 850nm | - | 750 m | - |
| DMD Specification | - | - | - | - |
| Numerical Aperture | 0.275±0.015 | 0.200±0.015 | 0.200±0.015 | 0.200±0.015 |
| Group Refractive index | | 1,496 | 1,482 | 1,482 |
| | | 1,491 | 1,477 | 1,477 |
| | | | | |
| Zero Dispersion Wavelength, λ ₀ | 1320-1365 nm | 1295-1340 nm | 1295-1340 nm | 1297-1328 nm |
| Zero Dispersion Slope, S ₀ | - | - | - | ≤4(-103)/(840λ/840) ⁴) |
| | - | - | - | ps/nm ² . km |
| Zero Dispersion Slope, S ₀ 1295nm≤λ ₀ ≤1310nm | - | ≤0.105 ps/nm ² .km | ≤0.105 ps/nm ² . km | - |
| 1310nm≤λ ₀ ≤1340nm | - | ≤0.000375(1590-λ ₀) ps/nm ² .km | - | - |
| 1320nm≤λ ₀ ≤1348nm | ≤0.11 ps/nm ² . km | - | ≤0.000375(1590-λ ₀)ps/nm ² . km | - |
| 1348nm≤λ ₀ ≤1365nm | ≤0.001(1458-λ ₀) ps/nm ² . km | - | - | - |