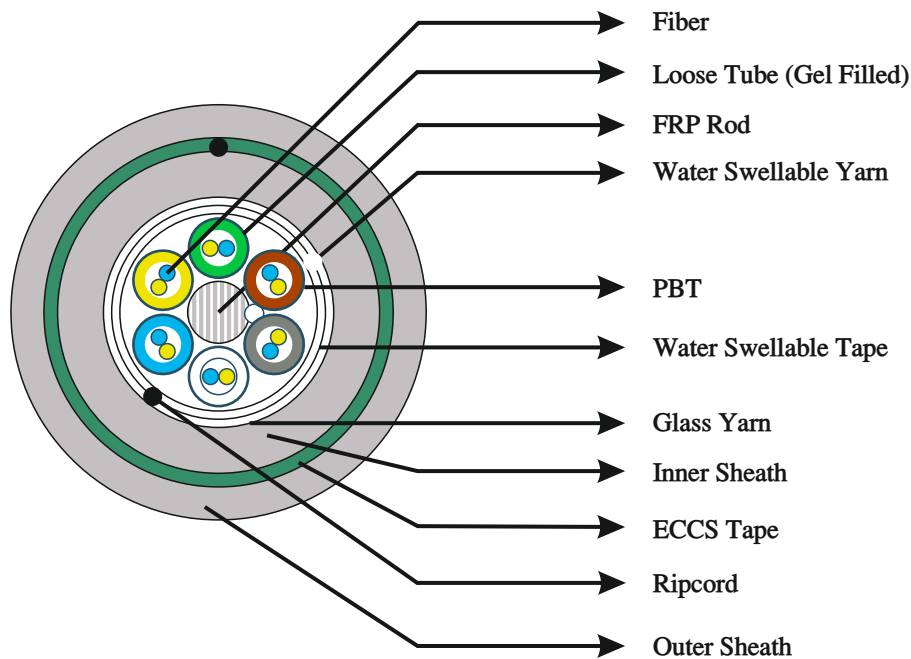


## LSZH ECCS Tape Fiber Cable

### Features



- With unique design Multi loose tube technology provide the fibers with enough space and bending endurance, which ensure good optical property of the fibers in the cable
- Accurate process control ensures good mechanical and temperature performance
- High quality raw material guarantees the long service life of cable
- Optical fibers are housed in loose tubes that are made of high-modulus plastic and filled with waterproof compounds.
- Application as Back bone in Campus LAN Network and Outdoor ducts.
- LSZH Resistance and Rodent Projected Cable

### Properties of fiber

Optical Fibers supplied in this specification meet the requirements of applicable standards

## Specifications

### Construction

|                             |                                 |
|-----------------------------|---------------------------------|
| Armored                     | ECCS Tape – 0.22mm with coating |
| Inner Jacket material       | MDPE – LSZH -Black - 1.5mm      |
| Out Jacket material         | HDPE –LSZH - Black – 1.8mm      |
| Fiber count                 | 6/12/24 fibers                  |
| Cable diameter (mm)         | 15.0 ± 1.0 mm                   |
| Cable weight (kg/km)        | 250 ± 50 kg                     |
| No Of Tubes                 | 6                               |
| Central Strength Member     | FRP Rod ( 2.0 +/- 0.1mm)        |
| Loose Tube diameter (ID/OD) | 1.2 / 1.9±0.1                   |
| Central Strength Member     | FRP 2.0±0.1                     |
| Moisture Barrier            | Water Swellable Yarn            |
| Peripheral Strength member  | Glass Yarn                      |
| Rip Cord                    | 2Nos Polyester                  |

### FOR SM – G652D cable

| Parameters                                              | Specifications                                        |
|---------------------------------------------------------|-------------------------------------------------------|
| MFD (1310nm)                                            | 9.2+/-0.4 μm                                          |
| MFD (1550nm)                                            | 10.4+/-0.5 μm                                         |
| Cladding diameter                                       | 125 1.0 μm                                            |
| Fiber diameter                                          | 245+/-7μm, , and colored to : 250+/-15 μm             |
| Core/cladding concentricity error                       | ≤ 0.8 μm                                              |
| Coating/cladding concentricity error                    | ≤ 12.0 μm                                             |
| Cladding non circularity                                | ≤ 1.0%                                                |
| Cut off wavelength                                      | $\lambda_{cc} \leq 1260\text{nm}$                     |
| Attenuation coefficient                                 | 1310nm: 0.36dB/km max after cabling                   |
|                                                         | 1550nm: 0.20dB/km max after cabling                   |
| Bending-loss performance of optical fiber@1310nm&1550nm | ≤0.05dB (100 turns around a mandrel of 50mm diameter) |
| Polarization mode dispersion link value                 | 0.2ps/ km                                             |
| Zero-dispersion wavelength                              | 1312+/-12nm                                           |
| Zero-dispersion slope                                   | ≤0.092ps/nm <sup>2</sup> .km                          |



### FOR OM3 cable

| Parameters                                                                            | Specifications                                  |
|---------------------------------------------------------------------------------------|-------------------------------------------------|
| Fiber attenuation coefficient                                                         | After cable<br>850nm≤3.0dB/km , 1300nm≤1.0dB/km |
| Macro bend additional attenuation<br>15mm radius, 2 turns<br>37.5mm radius, 100 turns | 1300nm Δ≤1.0dB<br>1300nm Δ≤0.5dB                |
| Effective mode bandwidth                                                              | @850nm ≥1500MHz·km<br>@1300nm ≥500MHz·km        |
| Core diameter                                                                         | 50±2.5μm                                        |
| Core / Clad Concentricity Error                                                       | ≤1.0μm                                          |
| Cladding diameter                                                                     | 125±1.0um                                       |
| Out-of-roundness of cladding                                                          | ≤ 1%                                            |
| Coating diameter                                                                      | 245±7um                                         |
| Proof stress level                                                                    | 100kpsi (0.69 GPa)                              |
| Coating strip force(peak value)                                                       | 1.3~8.9N                                        |
| Fibre curl (Radius)                                                                   | ≥ 4 m                                           |

### Mechanical and Environmental Characteristics

|                                                                          |                                                 |
|--------------------------------------------------------------------------|-------------------------------------------------|
| Temperature rating (IEC794-2-F1)<br>Operation<br>Storage<br>Installation | -40°C ~ +60°C<br>-40°C ~ +60°C<br>-10°C ~ +50°C |
| Max. loading (IEC794-1-E1)<br>Tensile Strength – Short Term              | 4000N                                           |
| Min bend radius (IEC794-1)<br>With load (mm)<br>Without load (mm)        | 20×D<br>10×D                                    |
| Crush resistance (IEC794-1)<br>- Short term                              | 4000N                                           |
| UV Resistance                                                            | Meet IEC 60794                                  |

## Specifications

### Reference Standard

- IEC60794-1
- IEC11801
- ITU-T G.652D; G.657A2; G.655
- IEC60332-1-2;
- ANSI/TIA
- GR-20
- RoHS Compliant

### Packaging

Wooden Drums Protection

### Marking

Cable Marker every Meter by: • Year of manufacture • Type of Cable , • Number of fiber, • Cable length,

### Delivery Length

Standard delivery length is 2km/drums other lengths available on request.

## Ordering Information

| P/N               | Descriptions                                                                      |
|-------------------|-----------------------------------------------------------------------------------|
| GFS2CALHTHTALS006 | Genius Fiber Optic cable 6 core Single Mode Multitube High Tensile Armoured LSZH  |
| GFS2CALHTHTALS012 | Genius Fiber Optic cable 12 core Single Mode Multitube High Tensile Armoured LSZH |
| GFS2CALHTHTALS024 | Genius Fiber Optic cable 24 core Single Mode Multitube High Tensile Armoured LSZH |
| GFS2CALHTHTALS048 | Genius Fiber Optic cable 48 core Single Mode Multitube High Tensile Armoured LSZH |
| GFS2CALHTHTALS096 | Genius Fiber Optic cable 96 core Single Mode Multitube High Tensile Armoured LSZH |
| GFM3CALHTHTALS006 | Genius Fiber Optic cable 6 core OM3 Multitube High Tensile Armoured LSZH          |
| GFM3CALHTHTALS012 | Genius Fiber Optic cable 12 core OM3 Multitube High Tensile Armoured LSZH         |
| GFM3CALHTHTALS024 | Genius Fiber Optic cable 24 core OM3 Multitube High Tensile Armoured LSZH         |
| GFM3CALHTHTALS048 | Genius Fiber Optic cable 48 core OM3 Multitube High Tensile Armoured LSZH         |
| GFM3CALHTHTALS096 | Genius Fiber Optic cable 96 core OM3 Multitube High Tensile Armoured LSZH         |
| GFM4CALHTHTALS006 | Genius Fiber Optic cable 6 core OM4 Multitube High Tensile Armoured LSZH          |
| GFM4CALHTHTALS012 | Genius Fiber Optic cable 12 core OM4 Multitube High Tensile Armoured LSZH         |
| GFM4CALHTHTALS024 | Genius Fiber Optic cable 24 core OM4 Multitube High Tensile Armoured LSZH         |
| GFM4CALHTHTALS048 | Genius Fiber Optic cable 48 core OM4 Multitube High Tensile Armoured LSZH         |
| GFM4CALHTHTALS096 | Genius Fiber Optic cable 96 core OM4 Multitube High Tensile Armoured LSZH         |

