

**Technical Specifications**

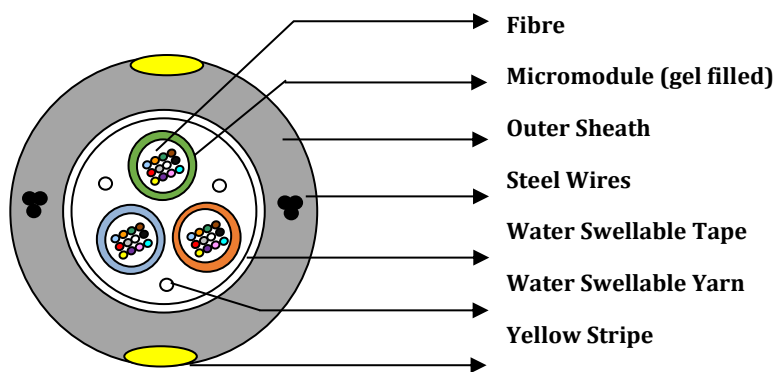
**ULW OVERHEAD OPTICAL FIBRE CABLE**

Part Name: Multi Fibre Unit Aerial Distribution Cable

Part Code: 3578-3583 R7 03032022

2/4/8/12/24/36/48F OVERHEAD OPTICAL FIBRE CABLE

**36F Cable Shown**



**Product Details**

|  |
|--|
| Optical Fiber are loosely packed in micro modules                        |
| Water blocked core interstices   |
| HDPE sheath as external protection                                       |
| PIA Approved and Tested, also approved for use as Cable & Clamp Packages |

**Cable Construction**

| Parameter                         | Structure/Layout/Material                  |    |    |              |
|-----------------------------------|--|----|----|--------------|
| Fibre Count                       | 2F   | 4F | 8F | 12/24/36/48F |
| Number of fibres per Micro module | 2  | 4  | 8  | 12           |
| Number of Fillers                 | 2  |    |    | 2/1/0/0      |
| Embedding Strength Member         | 3 x 0.32 mm - Brass Coated Steel Wire      |    |    |              |
| Moisture Barrier                  | Water Blocking Yarn & Water Swellable Tape |    |    |              |
| Strip Marking Width               | 1.25 mm(Nominal) - HDPE - Yellow           |    |    |              |
| Outer Sheath                      | 1.6 mm (Nominal) - HDPE UV Black           |    |    |              |
| Cable Diameter                    | 7.0 ± 0.3 mm                               |    |    |              |
| Cable Weight                      | 40.0 kg/km (Nominal)                       |    |    |              |

## Colour Coding

|                               |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| Fibre Colour<br>EIA/TIA - 598 | Bl | Or | Gr | Br | Sl | Wh | Rd | Bk | Yl | Vi | Pk | Aq |
|-------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|

|                                    |    |    |    |    |
|------------------------------------|----|----|----|----|
| Loose Tube Colour<br>EIA/TIA - 598 | Bl | Or | Gr | Br |
|------------------------------------|----|----|----|----|

## Cable & Fibre Characteristics

|                           |                                     |                  |                    |
|---------------------------|-------------------------------------|------------------|--------------------|
| Tensile Break Load        | 1900 N                              |                  | IEC-60794-1-21-E1  |
| Tensile Strength          | 1250 N                              |                  |                    |
| Crush Resistance          | 2000 N                              |                  | IEC-60794-1-21-E3  |
| Minimum Bend Radius       | 70 mm                               |                  | IEC-60794-1-21-E11 |
| Water Penetration Test    | 1 m water head, 3m sample, 24 hours |                  | IEC-60794-1-22-F5  |
| Environmental Performance | Installation                        | - 10 °C to +60°C | IEC-60794-1-22-F1  |
|                           | Operation                           | - 30 °C to +70°C |                    |
|                           | Storage                             | - 40 °C to +70°C |                    |

|                         |   |   |
|-------------------------|---|---|
| Voltage Test            | 11 Kv   | If installed along power line minimum vertical distance of 1.8 M should be maintained |
| Resistance to wind /ice | Cable shall withstand 97 kph wind, no ice.<br>80 kph wind + 5mm ice.<br>0 kph wind, + 10mm ice. without appreciable sag |   |
| Maximum Span            | 68M (80M in exceptional circumstances)  |   |

|  |                |                |         |           |
|--|----------------|----------------|---------|-----------|
| Fibre Type                               | G.657A1        |                |         |           |
| Attenuation                              | 1310 nm        | ≤ 0.35 dB/km   |         |           |
|  | 1550 nm        | ≤ 0.21 dB/km   |         |           |
|  | 1625 nm        | ≤ 0.23 dB/km   |         |           |
| Chromatic Dispersion                     | 1285-1330 nm   | ≤ 3.5 ps/nm.km |         |           |
|  | 1550 nm        | ≤ 18 ps/nm.km  |         |           |
|  | 1625 nm        | ≤ 22 ps/nm.km  |         |           |
| PMD (Max. Individual)                    | ≤ 0.15 ps/√km  |                |         |           |
| PMD (Link design value)                  | ≤ 0.06 ps /√km |                |         |           |
| Cable cut off wavelength λ <sub>cc</sub> | ≤ 1260 nm      |                |         |           |
| MFD                                      | 1310 nm        | 9.1 ± 0.3 μm   |         |           |
|  | 1550 nm        | 10.3 ± 0.5 μm  |         |           |
| Bending Induced Attenuation              | 1 Turn         | φ 20           | 1550 nm | ≤ 0.75 dB |
|  |                |                | 1625 nm | ≤ 1.5 dB  |
|  | 10 Turn        | φ 30           | 1550 nm | ≤ 0.25 dB |
|  |                |                | 1625 nm | ≤ 1.0 dB  |
| Core-Cladding Concentricity Error        | ≤ 0.5 μm       |                |         |           |
| Cladding Diameter                        | 125 ± 0.7 μm   |                |         |           |
| Cladding Non Circularity                 | ≤ 0.8 %        |                |         |           |
| Primary Coating Diameter (Uncoloured)    | 242 ± 5 μm     |                |         |           |

Cable Marking

HFCL Ltd. 2/4/8/12/24/36/48F SM G.657A1 ULW AERIAL OPTICAL CABLE *MMYYYY*  
*Length Code Meter Marking*

Cable Length

2.0/4.0 km ± 5 %

Packaging

Wooden drums or reels

Cable end sealed

*Drum marking: Drum number, User name, HFCL Limited, Fiber count, Cable Length, Date of manufacture, Net weight, Gross weight*

Cable Performance Standards

IEC 60793, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T, RoHS, REACH  
Cable is Openreach PIA approved & Tested  
Cable is also Openreach PIA approved & tested with Telenco & PLP Clamps so requires no separate testing with these clamps.