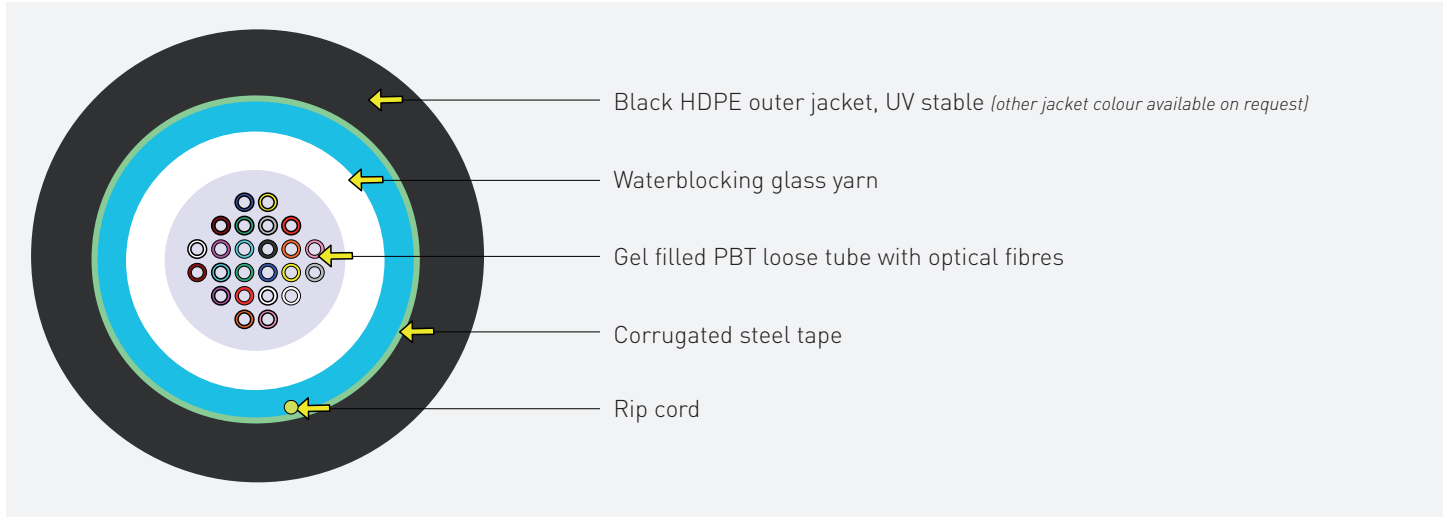




# OUTDOOR CENTRAL LOOSE TUBE WITH CST REINFORCEMENT

GGM FOxxBxxCST



GIGAMEDIA outdoor steel reinforced cables are ideal for outdoor installation, with a high level of protection against rodents.

They are suitable for direct burial or installation outside inside ducts. The black HDPE sheath also offers UV stability properties

## FEATURES

- ▶ Multimode 62.5/125 OM1, 50/125 OM2, 50/125 OM3, 50/125 OM4 or singlemode 9/125 OS2
- ▶ 4, 6, 8, 12 & 24 fibers
- ▶ OM3 & OM4 modes integrates bend optimized fiber technology
- ▶ Easy slitting
- ▶ Compliant with mechanical and environmental performances

## FIBRE COLOUR CODE

| ACCORDING IEC 60304 |             |
|---------------------|-------------|
| 1 Red               | 13 Red*     |
| 2 Green             | 14 Green*   |
| 3 Blue              | 15 Blue*    |
| 4 Yellow            | 16 Yellow*  |
| 5 White             | 17 White*   |
| 6 Grey              | 18 Grey*    |
| 7 Brown             | 19 Brown*   |
| 8 Purple            | 20 Purple*  |
| 9 Aqua              | 21 Aqua*    |
| 10 Black            | 22 Natural* |
| 11 Orange           | 23 Orange*  |
| 12 Pink             | 24 Pink*    |

\* with black rings

| CABLE PERFORMANCES                                | STANDARD            |                       |
|---------------------------------------------------|---------------------|-----------------------|
| <b>Maximum tensile strength (N)</b>               | 1 200 N             | IEC 60794-1-21 / E1A  |
| <b>Max. pulling force during installation (N)</b> | 6 000 N/dm          | IEC 60794-1-21 / E3   |
| <b>Crush resistance (N)</b>                       | 3 impacts (w/25N.m) | IEC 60794-1-21 / E4   |
| <b>Minimum bending radius (mm)</b>                | 15 x O.D.           | IEC 60794-1-21 / E11A |
| <b>Dynamic bending radius (mm)</b>                | 20 x O.D.           | IEC 60794-1-21 / E11B |
| <b>Moisture resistance test</b>                   | Pass                | IEC 60794-1-21 / F5   |
| <b>Temperature (installation)</b>                 | -15 °C to +50 °C    | IEC 60794-1-22 / F1   |
| <b>Temperature (operation)</b>                    | -30 °C to +50 °C    | IEC 60794-1-22 / F1   |
| <b>Temperature (storage)</b>                      | -30 °C to +70 °C    | IEC 60794-1-22 / F1   |

| PHYSICAL PROPERTIES      |                                   |
|--------------------------|-----------------------------------|
| <b>Weight</b>            | 70 kg/km                          |
| <b>Overall diameter</b>  | 8 ± 0.5 mm                        |
| <b>Sheath thickness</b>  | 1.2 ± 0.1 mm                      |
| <b>Central tube O.D.</b> | 2.9 mm (4-12 FO) / 3.0 mm (24 FO) |
| <b>Standard put-up</b>   | 2 000 to 4 000 m                  |

| OPTICAL PROPERTIES                              | OM1 62.5/125  | OM2 50/125    | OM3 50/125    | OM4 50/125    | OS2/G652D 9/125           |
|-------------------------------------------------|---------------|---------------|---------------|---------------|---------------------------|
| Bandwith @850nm (MHz.km)                        | ≥ 220         | ≥ 500         | ≥ 2000*       | ≥ 4700*       | NA                        |
| Bandwith @1300nm (MHz.km)                       | ≥ 600         | ≥ 500         | ≥ 500         | ≥ 500         | NA                        |
| Typ. attenuation @850nm (dB/km)                 | 2.6 / 3.0     | 2.4 / 3.5     | 2.0 / 3.0     | 2.0 / 3.0     | NA                        |
| Typ. attenuation @1300nm (dB/km)                | 0.5 / 0.7     | 0.7 / 1.5     | 0.5 / 1.0     | 0.5 / 1.0     | NA                        |
| Typ. attenuation @1310nm (dB/km)                | NA            | NA            | NA            | NA            | 0.31 / 0.36               |
| Typ. attenuation @1550nm (dB/km)                | NA            | NA            | NA            | NA            | 0.20 / 0.22               |
| Numerical aperture (μm)                         | 0.275 ± 0.015 | 0.200 ± 0.015 | 0.200 ± 0.015 | 0.200 ± 0.015 | NA                        |
| Core non-circularity                            | ≤ 5 %         | ≤ 5 %         | ≤ 5 %         | ≤ 5 %         | NA                        |
| Mode field diameter (1310/1550nm - μm)          | NA            | NA            | NA            | NA            | 9.2 ± 0.4<br>/ 10.4 ± 0.5 |
| Cladding diameter (μm)                          | 125 ± 1.0     | 125 ± 1.0     | 125 ± 1.0     | 125 ± 1.0     | 125 ± 0.7                 |
| Cladding non-circularity                        | ≤ 1 %         | ≤ 1 %         | ≤ 1 %         | ≤ 1 %         | ≤ 0.7 %                   |
| Coating diameter (μm)                           | 245 ± 7       | 245 ± 7       | 245 ± 7       | 245 ± 7       | 250 ± 15                  |
| Coating non-circularity                         | ≤ 6 %         | ≤ 6 %         | ≤ 6 %         | ≤ 6 %         | NA                        |
| Core/cladding concentricity error (μm)          | ≤ 1.5 μm      | ≤ 1.0 μm      | ≤ 1.0 μm      | ≤ 1.0 μm      | ≤ 15.0 μm                 |
| Cut-off wavelength (nm)                         | NA            | NA            | NA            | NA            | < 1260                    |
| Zero dispersion wavelength (nm)                 | 1320 - 1365   | 1295 - 1340   | 1295 - 1340   | 1295 - 1340   | 1302 - 1322               |
| GIR @850nm                                      | 1.496         | 1.482         | 1.482         | 1.482         | NA                        |
| GIR @1300nm                                     | 1.491         | 1.477         | 1.477         | 1.477         | NA                        |
| GIR @1310nm                                     | NA            | NA            | NA            | NA            | 1.466                     |
| GIR @1550nm                                     | NA            | NA            | NA            | NA            | 1.467                     |
| PMD individual fiber (ps/√km)                   | NA            | NA            | NA            | NA            | ≤ 0.2                     |
| Chromatic dispersion:<br>1285-1340nm (ps/nm.km) | NA            | NA            | NA            | NA            | ≤ 3.0                     |
| Chromatic dispersion: 1550nm (ps/nm.km)         | NA            | NA            | NA            | NA            | ≤ 18.0                    |

\* EMBc calculation method

|     | 4 FIBRES      | 6 FIBRES      | 8 FIBRES      | 12 FIBRES      | 24 FIBRES      |
|-----|---------------|---------------|---------------|----------------|----------------|
| OM1 | GGM F04B62CST | GGM F06B62CST | GGM F08B62CST | GGM F012B62CST | GGM F024B62CST |
| OM2 | GGM F04B50CST | GGM F06B50CST | GGM F08B50CST | GGM F012B50CST | GGM F024B50CST |
| OM3 | GGM F04B3CST  | GGM F06B3CST  | GGM F08B3CST  | GGM F012B3CST  | GGM F024B3CST  |
| OM4 | GGM F04B4CST  | GGM F06B4CST  | GGM F08B4CST  | GGM F012B4CST  | GGM F024B4CST  |
| OS2 | GGM F04B9CST  | GGM F06B9CST  | GGM F08B9CST  | GGM F012B9CST  | GGM F024B9CST  |