



## Pigtail

### LightMax® MULTIMODE All Range

900  $\mu$ m

OM1 | OM2 | OM3 | OM4

SC | LC | ST | FC | E2000 | MU

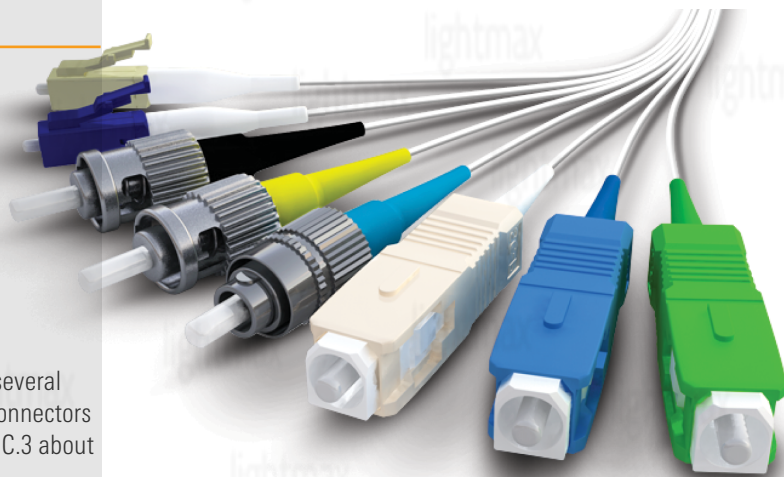
LightMax® Multimode All Range Pigtails are available in several options and configurations in terms of optical fibre and connectors types. Being made in compliance with ANSI/TIA/EIA-568.C.3 about material specifications LightMax® Multimode Pigtails are 100% inspected during and after their production process with the only purpose of assuring the best performance and quality.

#### Applications:

- Local and Wide Area Networks (LANs & WANs)
- Fibre Optic CATV, FTTX
- Fibre Optic telecommunications systems
- Fibre Optic Backbone infrastructure.

#### Features:

- Low insertion loss and high return loss
- Free-floating ceramic ferrule
- UL-rated plastic housing and boot
- Boot available in a variety of colours
- High precision alignment
- RoHS 3 compliance



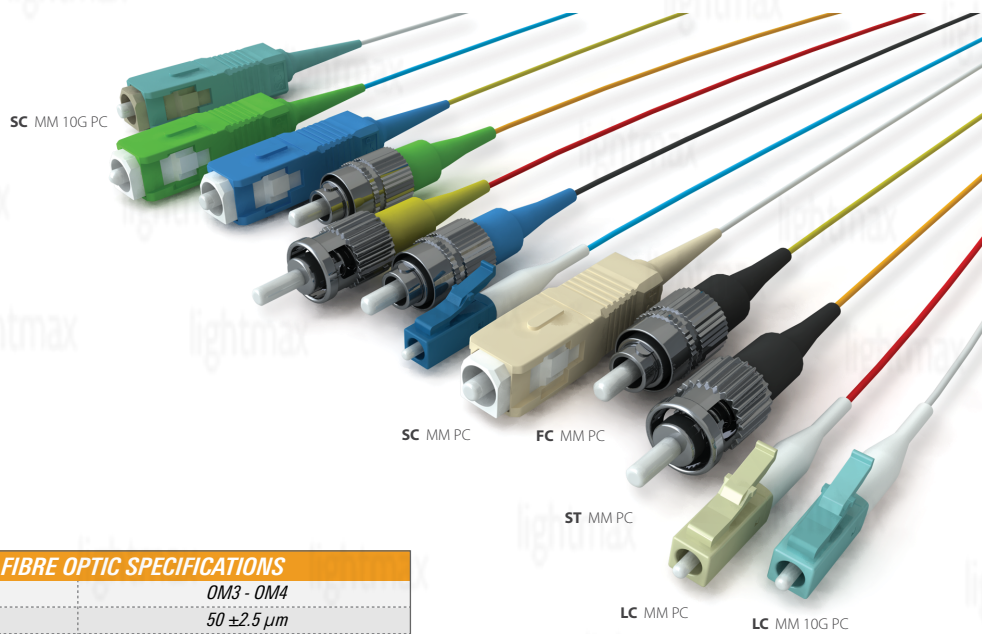
[Pictures for reference only]

#### OM1 FIBRE OPTIC SPECIFICATIONS

| Fibre type                           | OM1 Multimode              |                                       |
|--------------------------------------|----------------------------|---------------------------------------|
| Core diameter                        | 62.5 $\pm$ 2.5 $\mu$ m     |                                       |
| Cladding diameter                    | 125 $\pm$ 1.0 $\mu$ m      |                                       |
| Coating diameter                     | 245 $\pm$ 7 $\mu$ m        |                                       |
| Cladding non circularity             | $\leq$ 1.0 %               |                                       |
| Core/Cladding concentricity error    | $\leq$ 1.5 $\mu$ m         |                                       |
| Coating non circularity              | $\leq$ 6.0 %               |                                       |
| Cladding/Coating concentricity error | $\leq$ 10.0 $\mu$ m        |                                       |
| Cromatic Dispersion                  | Zero dispersion wavelength | 1320 ~ 1365 nm                        |
|                                      | Zero dispersion slope      | $\leq$ 0.11 [ps/nm <sup>2</sup> .km0] |
| Overfilled Modal Bandwidth           | @850 nm                    | $\geq$ 200 (MHZ*km)                   |
|                                      | @1300 nm                   | $\geq$ 200 (MHZ*km)                   |
| Attenuation                          | @850 nm                    | $\leq$ 2.7 dB/km                      |
|                                      | @1300 nm                   | $\leq$ 0.6 dB/km                      |
| Standard IEC 60793-2-10              |                            |                                       |

#### OM2 FIBRE OPTIC SPECIFICATIONS

| Fibre type                        | OM2 Multimode              |                                       |
|-----------------------------------|----------------------------|---------------------------------------|
| Core diameter                     | 50 $\pm$ 2.5 $\mu$ m       |                                       |
| Cladding diameter                 | 125 $\pm$ 1.0 $\mu$ m      |                                       |
| Coating diameter                  | 245 $\pm$ 7 $\mu$ m        |                                       |
| Cladding non circularity          | $\leq$ 1.0 %               |                                       |
| Core/Cladding concentricity error | $\leq$ 1.0 $\mu$ m         |                                       |
| Coating non circularity           | $\leq$ 6.0 %               |                                       |
| Cladding/Coating concentricity    | $\leq$ 12.0 $\mu$ m        |                                       |
| Cromatic Dispersion               | Zero dispersion wavelength | 1295 ~ 1320 nm                        |
|                                   | Zero dispersion slope      | $\leq$ 0.11 [ps/nm <sup>2</sup> .km0] |
| Overfilled Modal Bandwidth        | @850 nm                    | $\geq$ 500 (MHZ*km)                   |
|                                   | @1300 nm                   | $\geq$ 500 (MHZ*km)                   |
| Attenuation                       | @850 nm                    | $\leq$ 2.3 dB/km                      |
|                                   | @1300 nm                   | $\leq$ 0.6 dB/km                      |
| Standard IEC 60793-2-10           |                            |                                       |



| OM3 & OM4 FIBRE OPTIC SPECIFICATIONS |                            |                                  |                                                             |
|--------------------------------------|----------------------------|----------------------------------|-------------------------------------------------------------|
| Fibre type                           |                            | OM3 - OM4                        |                                                             |
| Core diameter                        |                            | 50 ±2.5 μm                       |                                                             |
| Cladding diameter                    |                            | 125.0 ±1.0 μm                    |                                                             |
| Coating diameter                     |                            | 245 ±7 μm                        |                                                             |
| Cladding non circularity             |                            | ≤ 1.0 %                          |                                                             |
| Core/Cladding concentricity error    |                            | ≤1.0 μm                          |                                                             |
| Core non-circularity                 |                            | ≤ 5.0 %                          |                                                             |
| Cladding/Coating concentricity error |                            | ≤ 12.0 μm                        |                                                             |
| Chromatic Dispersion                 | Zero dispersion wavelength |                                  | 1295 ~ 1340 nm                                              |
|                                      | Zero dispersion slope      | @1295 ≤λ <sub>0</sub> ≤1310 (nm) | ≤ 0.105 [ps/nm <sup>2</sup> .km0]                           |
|                                      |                            | @1310 ≤λ <sub>0</sub> ≤1340 (nm) | ≤ 0.000375 (1590-λ <sub>0</sub> ) [ps/nm <sup>2</sup> .km0] |
| Overfilled Modal Bandwidth           | @850 nm                    | OM3                              | ≥1500 (MHZ*km)                                              |
|                                      |                            | OM4                              | ≥3500 (MHZ*km)                                              |
|                                      | @1300 nm                   |                                  | ≥500 (MHZ*km)                                               |
| Attenuation                          | @850 nm                    | ≤ 2.4 dB/km                      |                                                             |
|                                      | @1300 nm                   | ≤ 0.6 dB/km                      |                                                             |
| Standard                             |                            |                                  |                                                             |
| IEC 60793-2-10                       |                            |                                  |                                                             |

| CABLE SPECIFICATIONS |           |    |                                                              |
|----------------------|-----------|----|--------------------------------------------------------------|
| Type                 |           |    | Simplex                                                      |
| Semi Loose tube      | Diameter  | mm | 0.85 ±0.05                                                   |
|                      | Material  | -  | LSZH                                                         |
|                      | Colour    | -  | Yellow                                                       |
| Bend radius          | Dynamic   | mm | 20D                                                          |
|                      | Static    |    | 10D                                                          |
| Temperature          | Storage   | °C | -20 ~ 60                                                     |
|                      | Operation |    | -20 ~ 60                                                     |
| Standards            |           |    | IEC 60794<br>GR-326-CORE<br>RoHS 3.0 [Directive 2015/863/EU] |

| CONNECTORS SPECIFICATIONS |             |                  |    |                  |    |                  |                  |
|---------------------------|-------------|------------------|----|------------------|----|------------------|------------------|
| CONNECTOR                 |             | SC               |    | LC               |    | ST               | FC               |
|                           |             | Sx               | Dx | Sx               | Dx |                  |                  |
| Coupling mechanism        |             | Push-pull        |    | Push-pull        |    | Bayonet          | Screw in         |
| Housing / Coupling        | Material    | Plastic          |    | Plastic          |    | Metallic         | Metallic         |
|                           |             |                  |    |                  |    |                  |                  |
| Ferrule                   | Material    | Zirconia ceramic |    | Zirconia ceramic |    | Zirconia ceramic | Zirconia ceramic |
|                           | Diameter    | 2.5 mm           |    | 1.25 mm          |    | 2.5 mm           | 2.5 mm           |
|                           | Polish type | PC               |    | PC               |    | PC               | PC               |
| IL [Insertion Loss]       | PC          | ≤0.25 dB         |    | ≤0.25 dB         |    | ≤0.25 dB         | ≤0.25 dB         |
| RL [Return Loss]          | PC          | ≥ 35 dB          |    | ≥ 35 dB          |    | ≥ 35 dB          | ≥ 35 dB          |
| Boot colours              | PC          | White            |    | White            |    | Red+Black        | Blue             |
| Operating Temperature     |             | -40°C ~ 70°C     |    | -40°C ~ 70°C     |    | -40°C ~ 70°C     | -40°C ~ 70°C     |