EyeSafe Delivery Fibers

Coherent has specifically engineered a unique range of single-mode 2μm beam delivery fibers for the long wavelength EyeSafe window from 1850-2200nm, available in both PM and non-PM versions. By applying our extensive fiber manufacturing expertise, gained in the demanding telecommunications industry, this family of fibers has excellent uniformity and high fatigue failure resistance. These fibers are aimed at emerging fiber applications for the 2μm wavelength, including medical, military/aerospace and industrial fiber laser markets.

Typical Applications

- Pigtailing 2μm components
- Tm-fiber lasers/amplifiers
- 2μm beam delivery

Features & Benefits

- Optimized for 2μm wavelengths — Higher performance
- Low bend loss at 2μm — Tighter packaging
- Tight tolerances — High product yield

Optical Specifications	SM1950	PM1950
Operating Wavelength	1850 – 2200 nm	1850 – 2200 nm
Core NA	0.200	0.200
Mode Field Diameter	8.0 μm @ 1950 nm (nominal)	8.0 μm @ 1950 nm (nominal)
Cutoff	1720 ± 80 nm	1720 ± 80 nm
Beat Length (nominal)	N/A	5.2 mm @ 1950 nm
Birefringence	N/A	nominal 3.5×10^{-4}

Geometrical & Mechanical Specifications	SM1950	PM1950
Cladding Diameter	125.0 ± 1.0 μm	125.0 ± 1.0 μm
Core Diameter	7.0 μm	7.0 μm
Coating Diameter	245.0 ± 15.0 μm	245.0 ± 15.0 μm
Coating Concentricity	< 5.0 μm	< 5.0 μm
Core/Clad Offset	≤ 0.50 μm	≤ 0.50 μm
Coating Material	Acrylate	Acrylate
Operating Temperature Range	-40 to 85 °C	-40 to 85 °C
Prooftest Level	≥ 100 kpsi (0.7 GN/m²)	≥ 100 kpsi (0.7 GN/m²)

COHERENT

RoHS compliant

Custom developed fiber (FUD) specifications are subject to change without notice. Other configurations such as alternative form factors, optimized cut-off and UV cured color coating may be available. Let us know how Coherent can assist with your requirements.

NU0135- 11/12/2020