



WAVEOPTICS

OM1

Optical Fiber Specifications

**TECHNICAL
INFORMATION**



WAVEOPTICS FIBER (B) OM1

Optical fiber specifications before cabling

| CHARACTERISTICS | | WAVEOPTICS OM1 |
|--|---------|------------------------------------|
| Fiber Code | | B |
| Attenuation | 850 nm | ≤ 2.9 dB/km |
| | 1300 nm | ≤ 0.7 dB/km |
| | 1383 nm | ≤ 2.0 dB/km |
| Attenuation Discontinuities | 1300 nm | ≤ 0.05 dB |
| Bandwidth (Overfilled Launch) | 850 nm | ≥ 200 MHz*km |
| | 1300 nm | ≥ 500 MHz*km |
| Numerical aperture | | 0.275 ± 0.015 |
| Group refractive index | 850 nm | 1.497 |
| | 1300 nm | 1.493 |
| Zero dispersion wavelength λ_0 | | $1320 \leq \lambda_0 \leq 1365$ nm |
| Transmission link distance for 1Gb/s | 850 nm | 300 m |





Physical Characteristics

| CHARACTERISTICS | WAVEOPTICS OM1 |
|--------------------------------------|--------------------------------------|
| Core diameter | $62.5 \pm 2.5 \text{ } \mu\text{m}$ |
| Cladding diameter | $125.0 \pm 1.0 \text{ } \mu\text{m}$ |
| Core-cladding concentricity error | $\leq 1 \text{ } \mu\text{m}$ |
| Cladding non-circularity | $\leq 1 \%$ |
| Coating diameter | $242.0 \pm 7 \text{ } \mu\text{m}$ |
| Coating-cladding concentricity error | $\leq 10 \text{ } \mu\text{m}$ |

Environmental Characteristics

| CHARACTERISTICS | CONDITIONS | WAVEOPTICS OM1 |
|------------------------|--|--------------------------|
| Temperature cycling | -60°C to $+85^{\circ}\text{C}$ | $\leq 0.1 \text{ dB/km}$ |
| Water immersion | $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ | $\leq 0.1 \text{ dB/km}$ |
| High temperature aging | $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ | $\leq 0.1 \text{ dB/km}$ |

