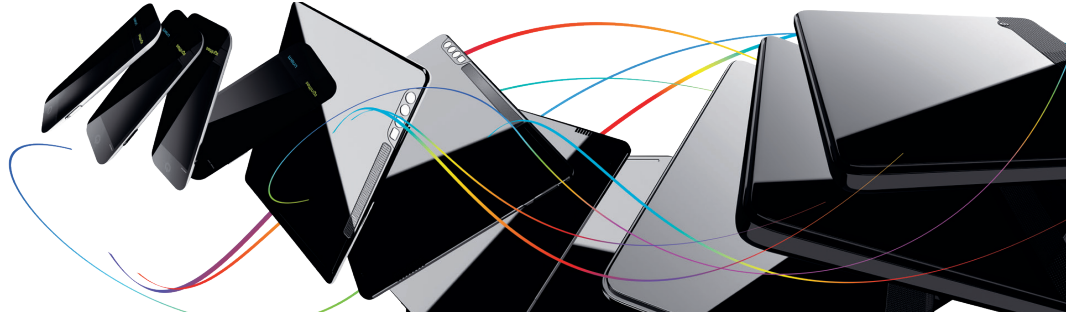


Corning® ClearCurve® VSDN® Optical Fiber

Product Information



Corning® ClearCurve® VSDN® optical fiber, a new alternative to plastic fiber, is uniquely designed for 850 nm VCSEL-based short distance network applications such as Active Optical Cables or those utilized in the consumer electronics industry for within-device and/or device-device data transfer. In this application space, ClearCurve VSDN fiber is designed to address the following requirements:

- Higher bend performances, exhibiting both ultra-low bending loss and superior mechanical reliability to survive the “cable pinch test”
- Enables inexpensive connectivity solutions by allowing relaxed alignment tolerances through a 80 μm core size and a high numerical aperture (0.29)
- Maintains high bandwidth at large alignment tolerances (DMD verified at 850 nm), capable of exceeding bandwidth needs of consumer applications above 10 Gb/s over 10s of meters

With its incredibly tough, bend-intensive design, ClearCurve VSDN fiber brings fiber-fast speeds to the consumer device market.

It's time to change the way you think about glass. Unlock the future of ultra-fast device connectivity with ClearCurve VSDN fiber.

Dimensional Specifications

Fiber Geometry

Core Diameter	80 \pm 4 μm
Hybrid Cladding Diameter	125 \pm 2 μm
Coating Diameter	242 \pm 10 μm
Core-Hybrid Cladding Concentricity Error	\leq 3 μm
Hybrid Cladding Non-Circularity	\leq 3%

Optical Specifications

Numerical Aperture

0.290 \pm 0.015

How to Order

Contact your sales representative, or call the Optical Fiber Customer Service Department:
Ph: 1-607-248-2000 (U.S. and Canada)
+44-1244-525-320 (Europe)

Email: cofic@corning.com
Please specify the fiber type, attenuation, and quantity when ordering.



Optical Specifications (cont'd)

Macrobend Loss @ 850 nm

Bend Radius (mm)	Number of Turns	Typical Induced Attenuation ¹ (dB)
1.5	1/2 (180°)	2.0

¹ Tested using a two-point bend configuration. Launch condition based on IEC 61280-4-1 (Table E.4), representing worst case consumer grade VCSEL transceiver launch condition.

Bandwidth @ 850 nm

ClearCurve® VSDN® Fiber

Optimized Data Rate over Distance: DMD verified EMB >300 MHz.km @ 850 nm allowing over 10 Gb/s over 10s of meters.

Attenuation

Wavelength (nm)	Maximum Value (dB/km)
850	≤ 3.5

Environmental Specifications

Operating Temperature Range: -40°C to +85°C

Mechanical Specifications

Proof Test

The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.69 GPa).

Performance Characterizations

Characterized parameters are typical values.

Effective Group Index of Refraction (N_{eff})	850 nm: 1.496 1300 nm: 1.490
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