

Corning® InfiniCor® Optical Fibers

Corning Cable Systems LANscape® Pretium® Solutions are
100 Percent InfiniCor Optical Fiber



CORNING

We test smarter.

There are two standards-compliant 10G bandwidth measurements: minEMBc and the DMD-mask. The quality of Corning® InfiniCor® fibers is continuously monitored through the best-in-class minEMBc bandwidth measurement. Corning performs this measurement on every reel of 50 µm InfiniCor fiber and we have never had a field return for bandwidth failure, ever.

The first step of the minEMBc bandwidth measurement is to ensure that the fiber is perfectly centered. Some manufacturing methods can result in imperfections in the center which are more commonly referred to as “center-line dips.” Although Corning’s OVD process is less prone to these types of imperfections, there have been some erroneous statements to the contrary. By ensuring that every measurement is taken through the true center of the fiber, the OM3 or OM3+ fibers you buy from Corning will perform as advertised. Performance will not be degraded due to a hidden center-line dip because the minEMBc bandwidth measurement reflects the worst case bandwidth performance you can expect to see when using the fiber with any standards compliant VCSEL.

Corning is committed to providing comprehensive fiber testing, ensuring that every strand of fiber we ship is of the highest quality. We use the industry’s most accurate laser bandwidth measurements to give you reel-specific bandwidth performance values, enabling more system margin and more design flexibility.

Bottom line: our specifications reflect true fiber bandwidth. So when you purchase our fiber, you know exactly what you’re getting, every time.

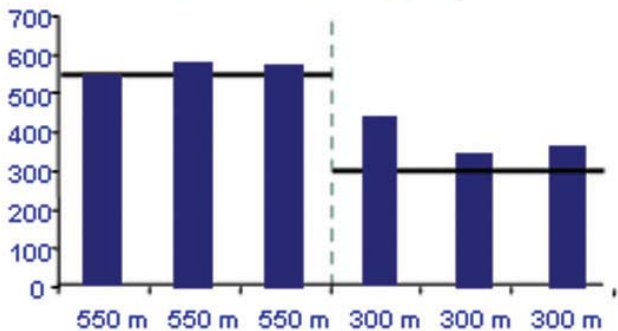
Once the fiber has been centered, a Titanium-Sapphire laser is scanned across the core in 1-2 µm increments. The standard only requires scanning across the radius, but Corning scans across the full diameter to ensure that the fiber is symmetric and the measurement is accurate and reliable. With the DMD-mask method, the data is normalized (i.e., some of the data is thrown away) and then a series of six masks (templates) are applied to see if the fiber passes. The fiber only needs to pass one of the six masks to be considered OM3-compliant. In some cases, other filtering measurements may also be necessary to identify fibers that could experience system performance issues. With minEMBc all of the data is considered and the DMD results are then overlaid with the outputs of 10 standards-compliant VCSELs (that span the allowable range of standards-compliant VCSELs) resulting in 10 system bandwidth values. The lowest of these 10 values is then assigned as the minEMBc bandwidth value. This ensures that your fiber will work with any standards-compliant VCSEL you purchase.

Corning employs the most conservative bandwidth measurement conditions such as uniform intensity overfilled launches (standards allow up to 25 percent variation) and fully tension-free deployment to ensure the highest degree of accuracy and repeatability.

Recent system testing of six randomly chosen Corning® InfiniCor® OM3 and OM3+ fibers (measured using minEMBc) along with a leading competitor's OM3 and OM3+ fibers (measured using the DMD-mask method) is shown below. While all six of the Corning fibers met or exceeded the link length for which they were designed, four out of six of the competitive fibers came up short.

Corning Specifications Reflect True Laser Bandwidth

Actual 10 Gb/s Link Length

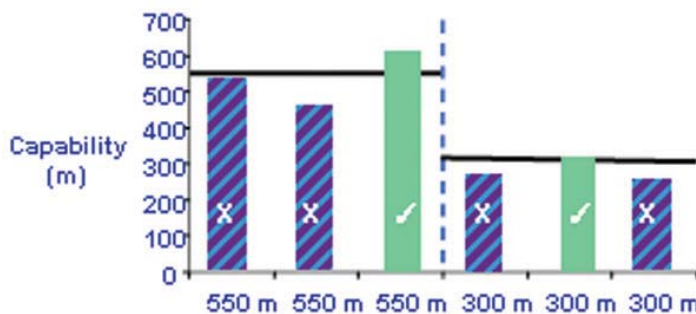


10 Gb/s Link Length Specifications as Sold

InfiniCor® Fiber

Competitive MMF Does Not Pass Specification

Actual 10 Gb/s Link Length



10 Gb/s Link Length Specifications as Sold

Competitor MMF

Choose Corning InfiniCor fibers for your network to ensure that your optical fiber performance never comes up short. Corning goes to incredible lengths to make the highest quality optical fiber that will perform as expected in your network.

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