CORNING

Cable
Systems

Cables with
Ultra-Bendable Performance

Product

Cables with Ultra-Bend Performance

- Riser & Plenum Zipcord
- ClearCurve® OM3 (SX+)
- 1.6, 2.0, and 3.0 mm

Print Statement

To insure that the jumper you are building is an Ultra Bendable assembly, look for 'Ultra-Bend 7.5' on the jacket print.

Zipcord Plenum 1.65 mm, 2.0 mm, and 3.0 mm

CORNING OPTICAL CABLE – MM/YY - 2 MM50 PRETIUM 300 ULTRA-BEND 7.5 – TB2 – OFNP FT6 C(ETL)US XXXXX FEET

Zipcord Riser 1.65 mm, 2.0 mm, and 3.0 mm

CORNING OPTICAL CABLE – MM/YY - 2 MM50 PRETIUM 300 ULTRA-BEND 7.5 – TB2 – OFNR FT4 C(ETL)US XXXXX FEET

Jumper Specification: Installed Cable Minimum Bend Radius

Cable OD (mm)	Min Bend Radius of Cable Leg (mm)
2.8 x 5.6	14.0
2.0 x 4.0	10.0
1.6 x 3.3	8.0

Rule of Thumb: 5x cable OD

Note: Rule of Thumb for Standard product = 10x Cable OD

Value Proposition

Would you take the risk of not having insurance on your home?

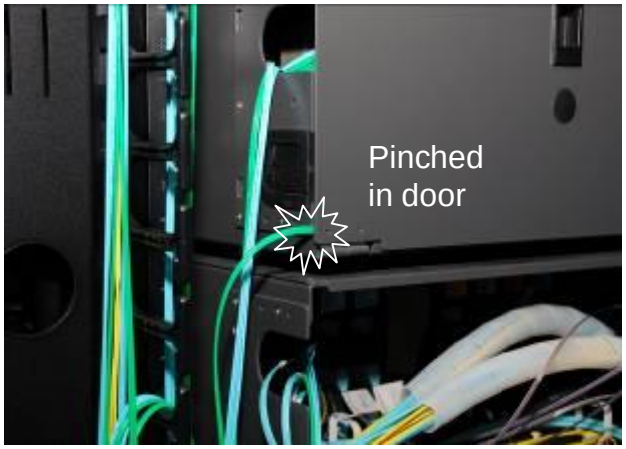
Provide margin insurance for your network with Corning Cable Systems Low-Loss OM3 Ultra-Bend Cables.

Value Proposition

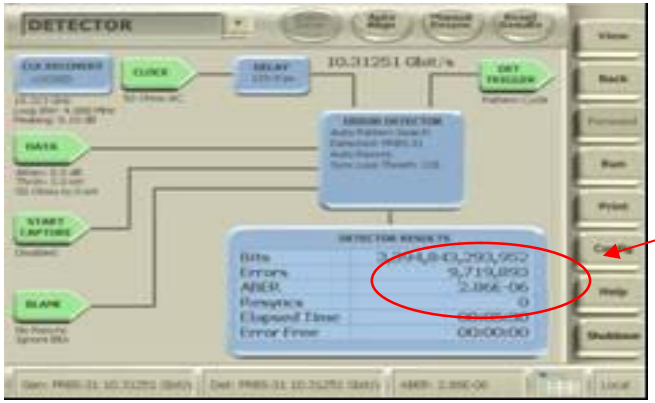
- Even when best practices are employed, mistakes can occur that result in kinked cables and cables bent beyond recommended minimum bend radius.
- Ultra-Bend jumpers will greatly reduce if not eliminate most outages and degradation in the system caused by macro-bending.
- For example, jumpers pinched in housing doors or caught in a drawer can result in systems that are running at close to the link loss budget to degrade to levels higher than the desired BER of 10^{-12}
- ***CCS subjected the interconnect cables to a series of torture tests….***

Cable ‘Torture Tests’ – Closed in housing door

Standard 50 um Jumper



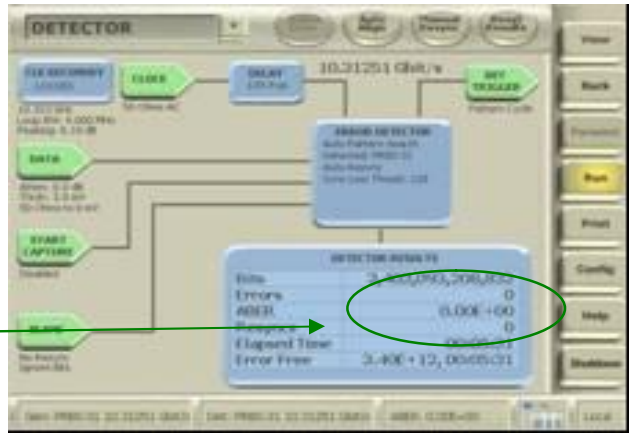
Ultra-bend 50 um Jumper



BER

10^{-6}

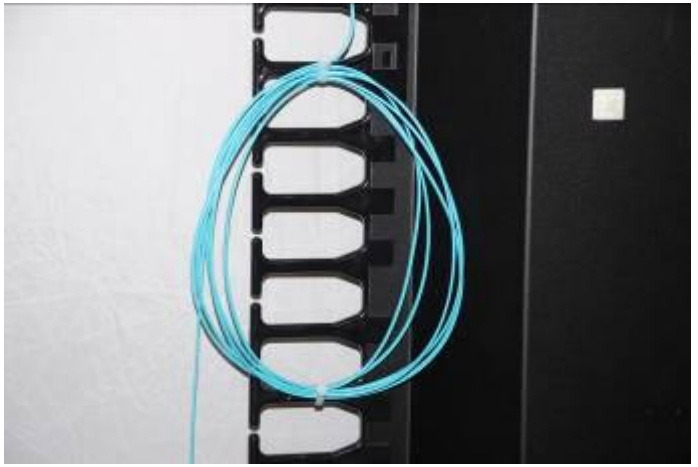
Better than 10^{-12}

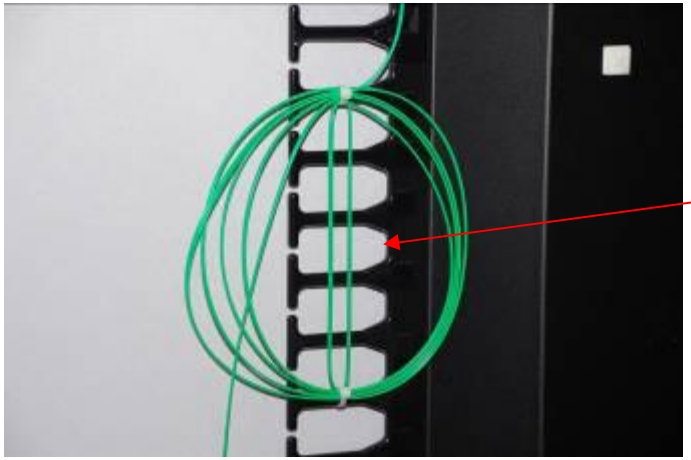


Cable ‘Torture Tests’ – Tight slack loop

Standard 50 um Jumper

Ultra-bend 50 um Jumper

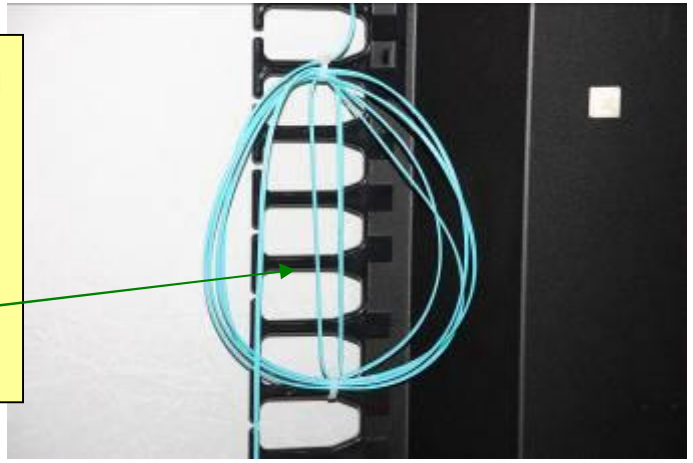




Attenuation

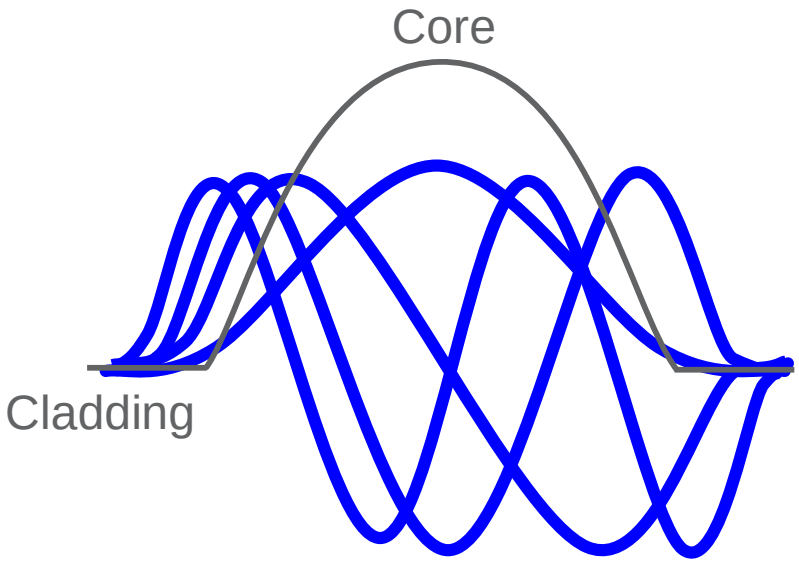
5.39 dB

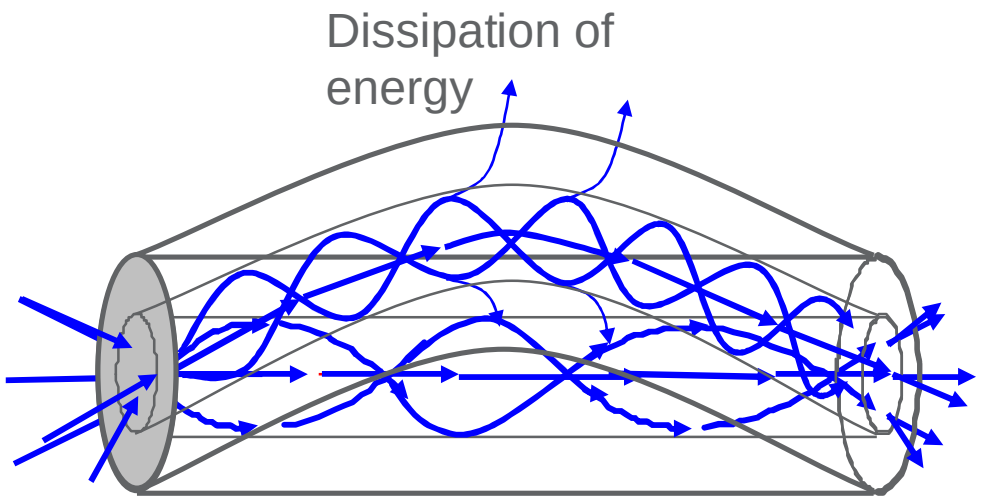
0.54 dB



Macrobending in Multimode Fibers

- Multimode optical fiber has many modes of light traveling through the fiber
- As each of these modes moves closer to the edge of the core it is more likely to escape, especially if the fiber is bent
- As the bend radius is decreased, the amount of light that leaks out of the core increases





ClearCurve® Multimode Fiber Technology

- ClearCurve® multimode fiber is capable of confining almost all the energy of the different modes, even in the most challenging bending scenarios
- Larger core diameter, behavior of different modes and different application space led to different solution than for single-mode fiber
- ClearCurve multimode utilizes a specially engineered optical trench to trap the many modes within the fiber core