Tip | *What is mode conditioning?*

Transceiver modules used in Gigabit Ethernet (1000BASE-LX) launch only single mode (1300 nm) long wave signals. This poses a problem if an existing fiber network utilizes multimode cable.

When a single mode signal is launched into a multimode fiber a phenomenon known as Differential Mode Delay (DMD) can create multiple signals within the multimode fiber. This effect can confuse the receiver and produce errors. Mode conditioning cables utilize an offset between the single mode fiber and the multimode fiber to eliminate DMD and the resulting multiple signals allowing use of 1000BASE-LX over existing multimode fiber cable systems.

Multimode

Single mode

C_L Centerlines Offset