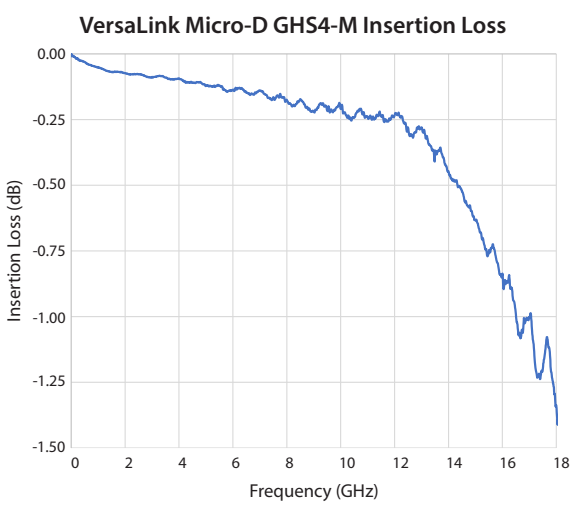
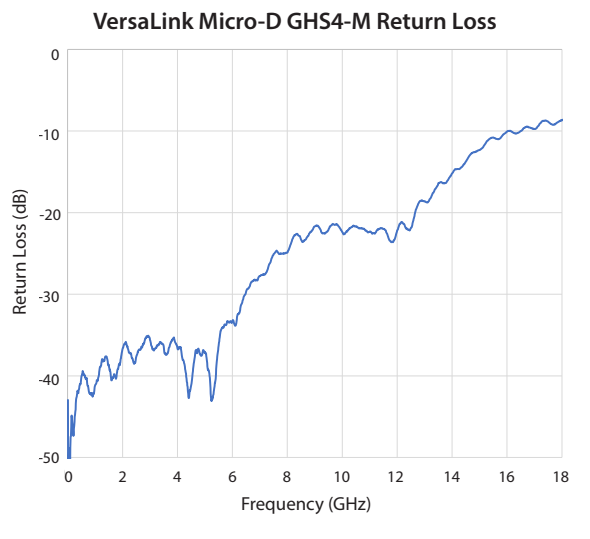
Signal Integrity: VersaLink Micro-D



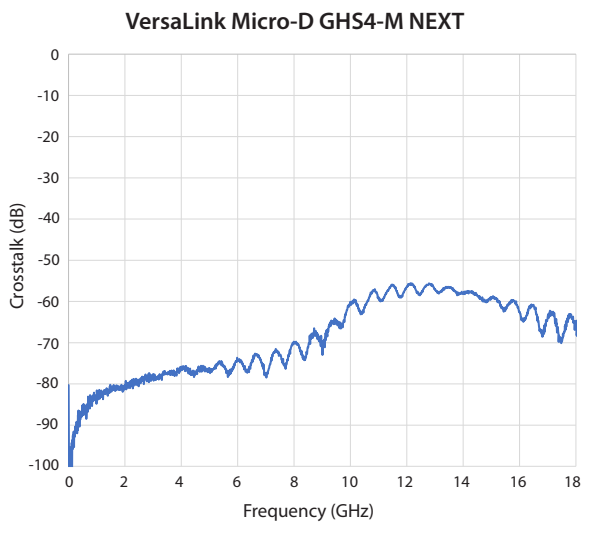
VERSALINK MICRO-D INSERTION LOSS

Insertion loss refers to the loss of signal power resulting from traveling through a cable or other component in a transmission line. High insertion loss can lead to signal degradation, reduced signal strength, and potentially cause errors in high-speed data transmission. The X axis in the graph charts frequency in GHz. The Y axis represents the magnitude of insertion loss in dB. The chart showcases low insertion loss performance of VersaLink at the full frequency range required for the protocols mentioned in the chart on the previous page.



VERSALINK MICRO-D RETURN LOSS

Return loss is a measure of the amount of signal power that is reflected back toward the source due to impedance mismatches in the transmission line. It quantifies how well the cable or component matches the characteristic impedance of the system. High return loss indicates good impedance matching and minimal reflections—crucial for maintaining signal integrity in high-speed data transmission. The X axis represents frequency in GHz. The Y axis represents the magnitude of return loss in dB. Higher dB values indicate better performance (less reflection). Results of this test indicate high return loss values across the target protocol frequency range.



VERSALINK MICRO-D NEAR-END CROSSTALK (NEXT)

For the high-speed cable assembly under test, NEXT refers to the unwanted coupling of a signal from the aggressor line into the victim line at the same end of the cable assembly where the signal was transmitted (the Near End). It's a measure of how much signal noise from the line carrying the high-speed data (the aggressor) interferes with the monitored non-transmission (victim) line close to the source. The X axis represents frequency, measured in GHz. The Y axis represents the magnitude of crosstalk, measured in dB, where lower dB values indicate more significant interference. Results of this test sequence demonstrate Near-End Crosstalk dB values well above the magnitude of significant interference at target protocol frequencies.

See GT-19-230 for full report.