



850 nm Serial Link Performance on New MMF

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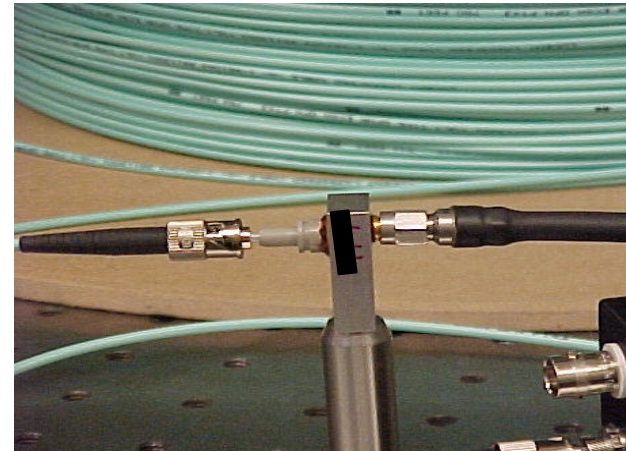
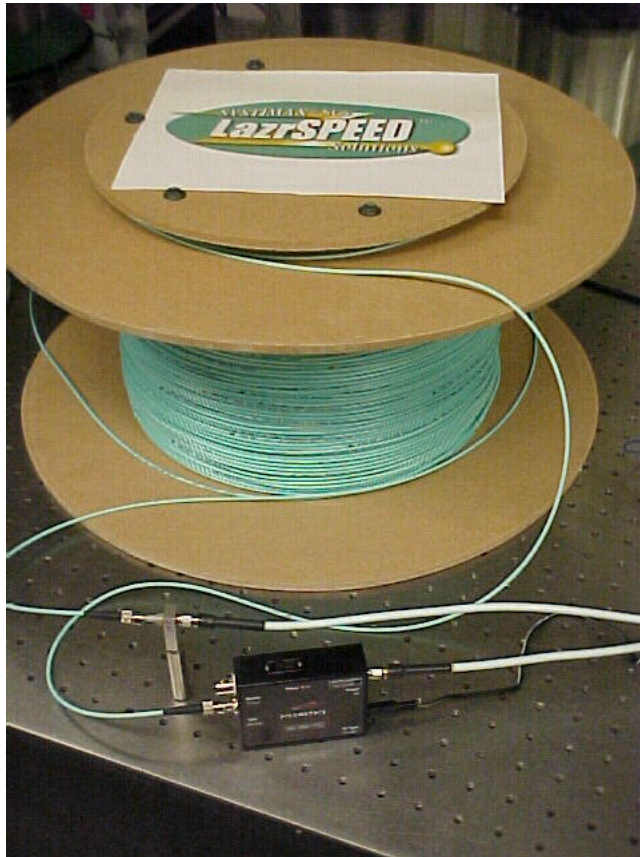
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10 Gb/s over new MMF



- Packaged 850 nm VCSEL and new LazrSPEED™ MMF

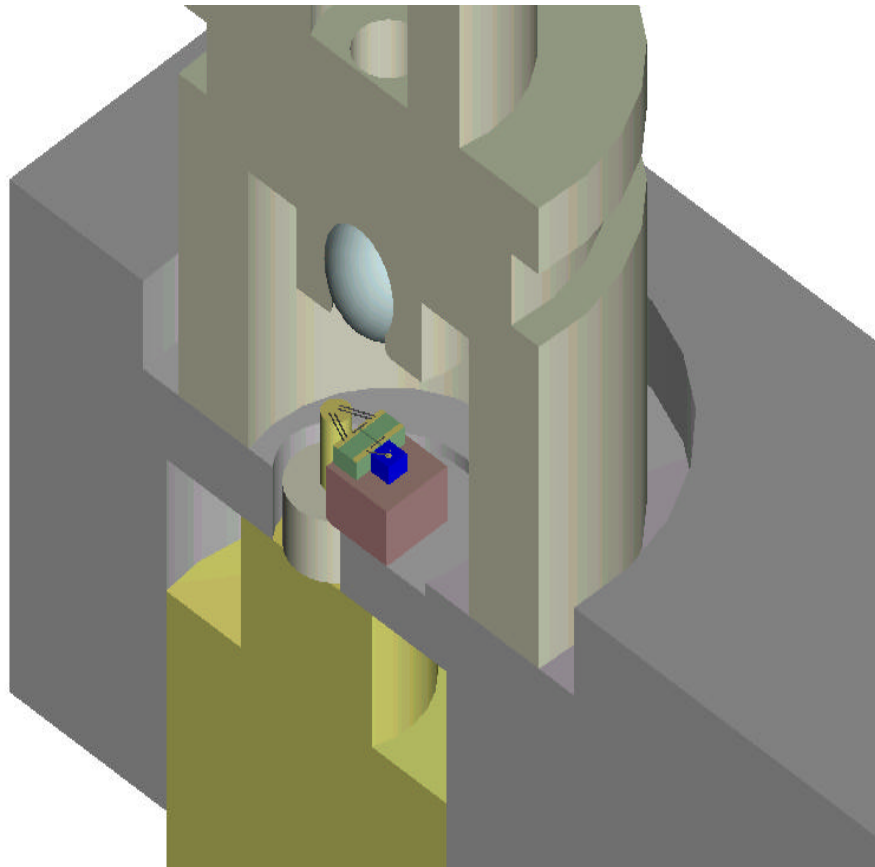


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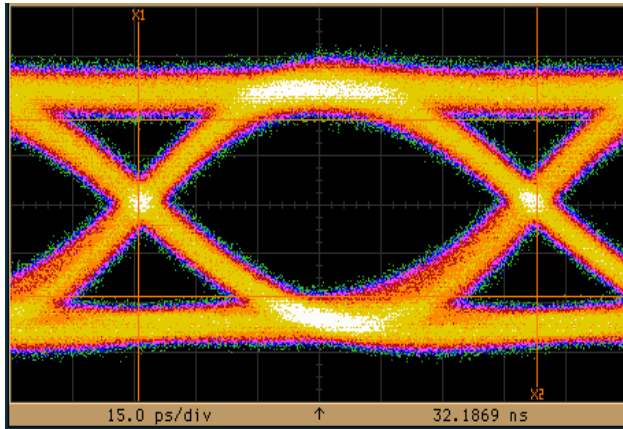
Low-Cost Packaging Capable



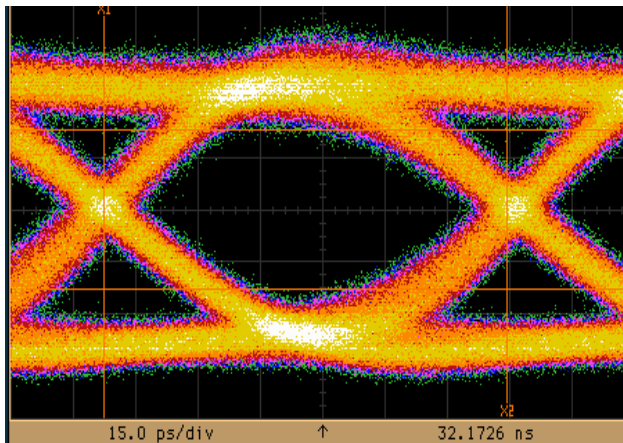
- Low-cost packaging provided by Vertical laser
- Packaging technology similar to that demonstrated in 1 GbE market



10 GBit/sec Eye Diagrams



- Output of 850 nm VCSEL @ 1 m

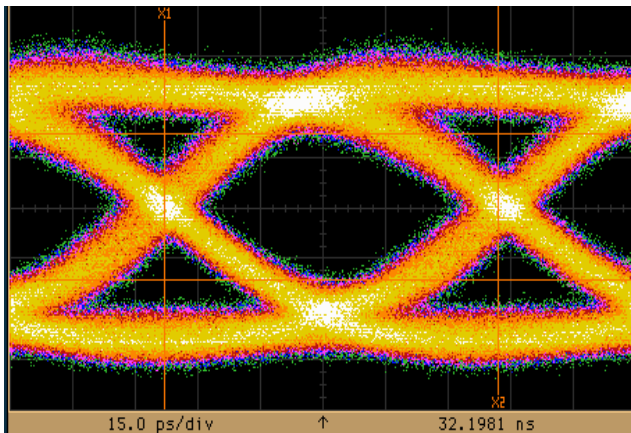
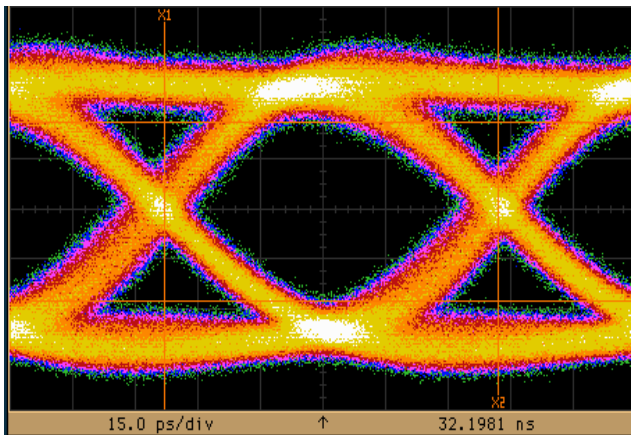


- Output @ 300 m of 50 μm new fiber





12.5 Gbit/sec Eye Diagrams



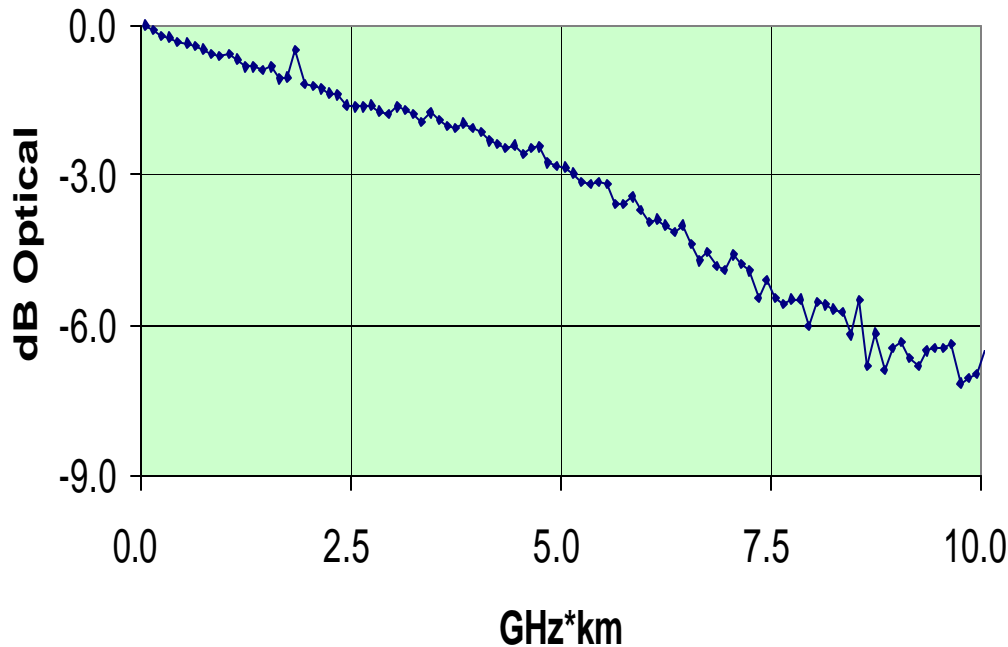
- Output of 850 nm VCSEL @ 1 m
- Output @ 300 m of 50 μ m new fiber





Source/Fiber Bandwidth

Measured Bandwidth on 1km length



- 3 dB Bandwidth for Cielo/Lucent $\cong 5 \text{ GHz*km}$
- Exceeds minimum requirement for 10 Gbit/sec on 300 meters



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Conclusion

- Low-cost packaging of VCSEL and demonstrated 10Gbit/sec performance on Next Generation MM fiber make serial links a competitive economic choice for 10GbE.