

# *High Speed 850nm VCSEL Transmission Over Multimode Fiber*

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July '99

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The Light Connection



# *Project Objective*

*Evaluate the Performance of Gore High Speed 850 nm VCSELs with Lucent High Bandwidth Multimode Fiber*

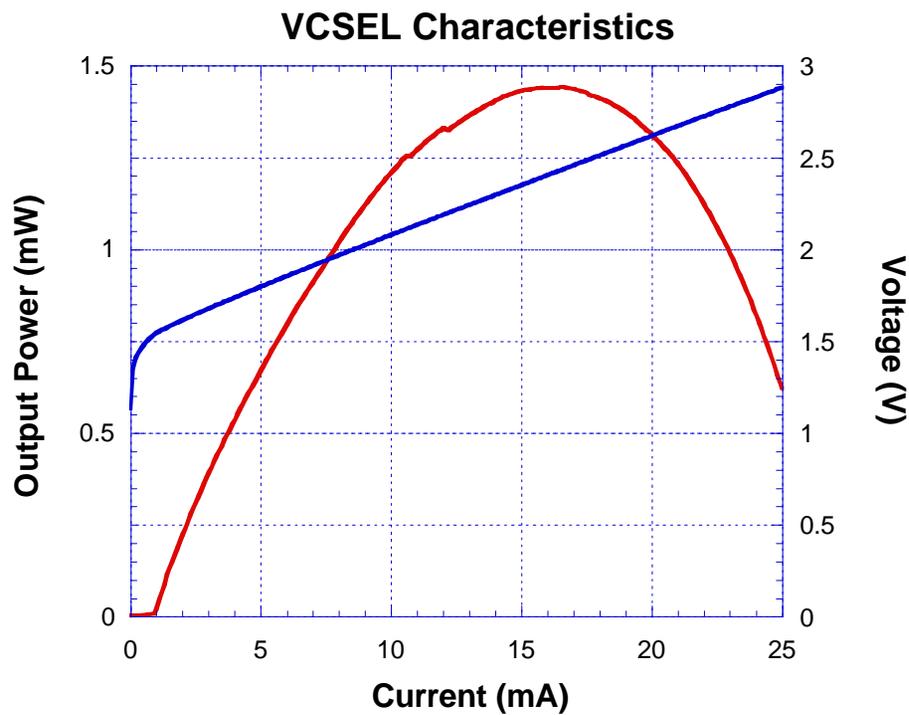


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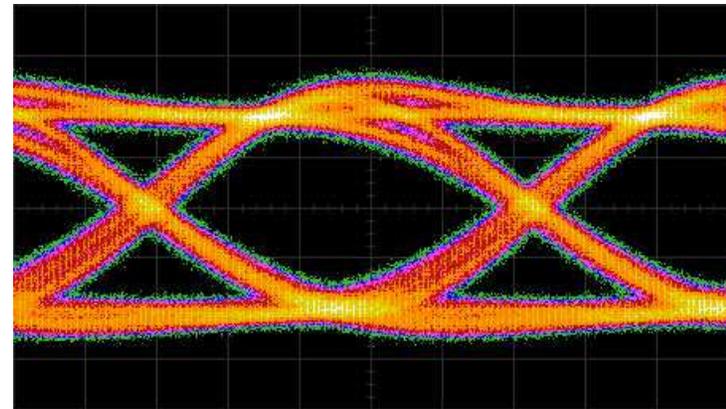
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# *Gore High Speed 850 nm VCSELs*



**12.5 Gb/s Eye Pattern**

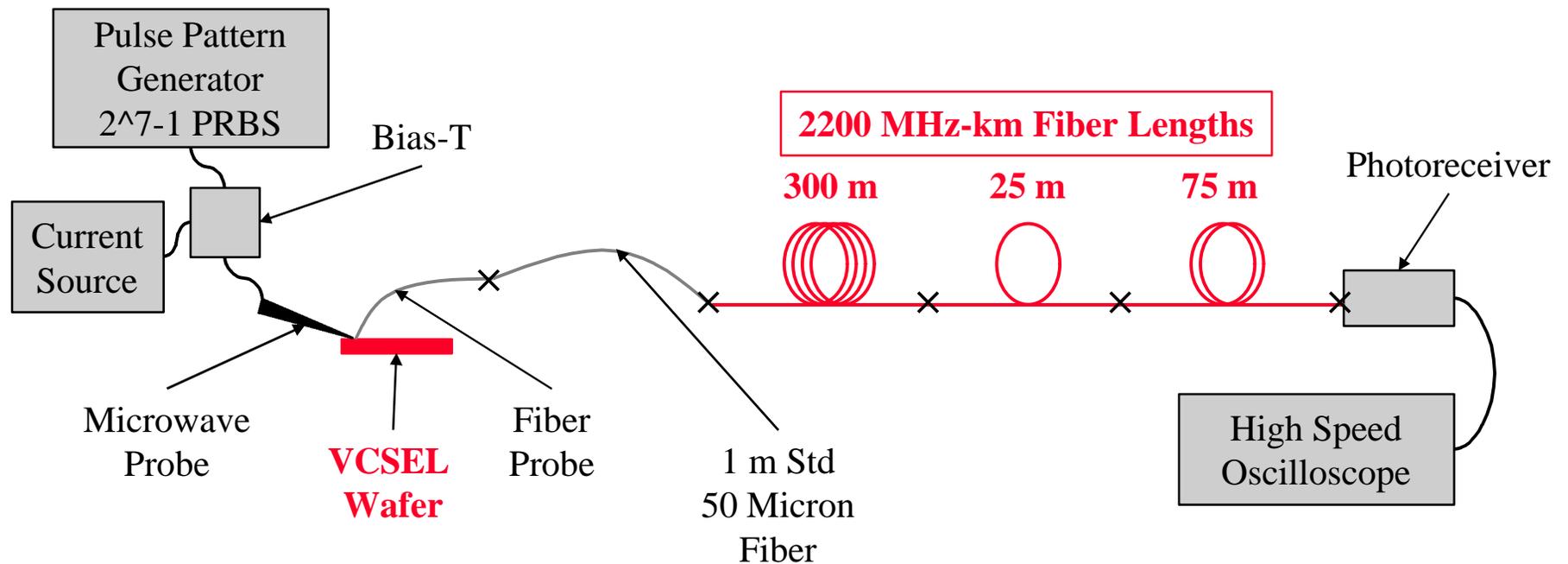


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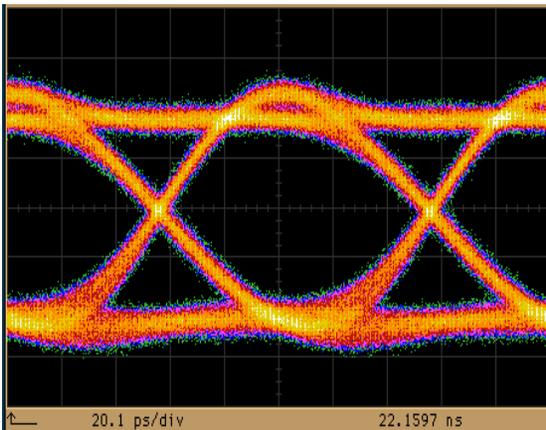


# High Bandwidth Fiber Test Schematic

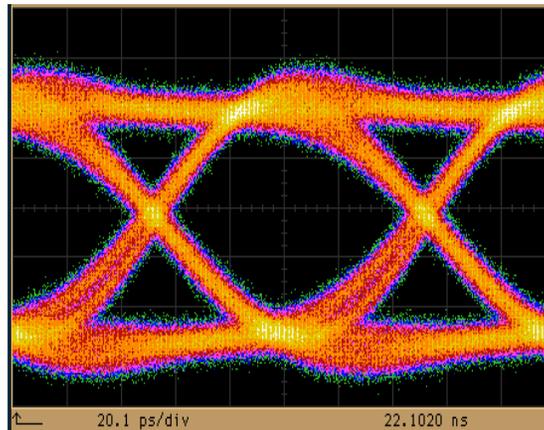


# 10 Gb/s Eye Patterns *Gore 850 nm VCSELs with Lucent high bandwidth fiber*

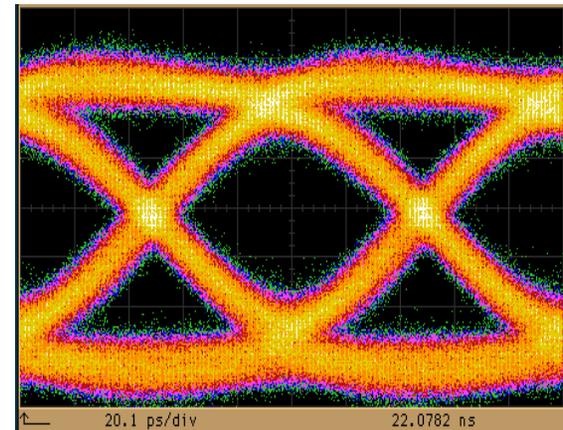
*1 meter length*



*300 meter length*



*400 meter length*



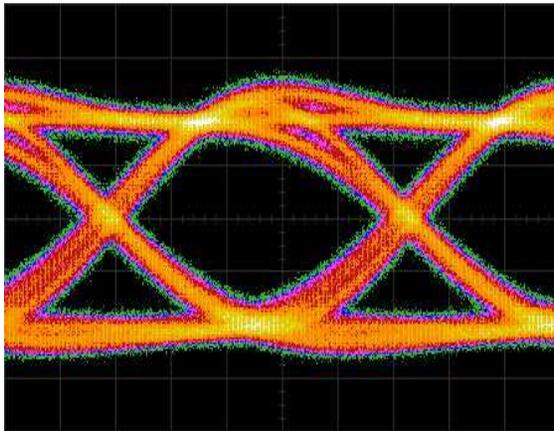
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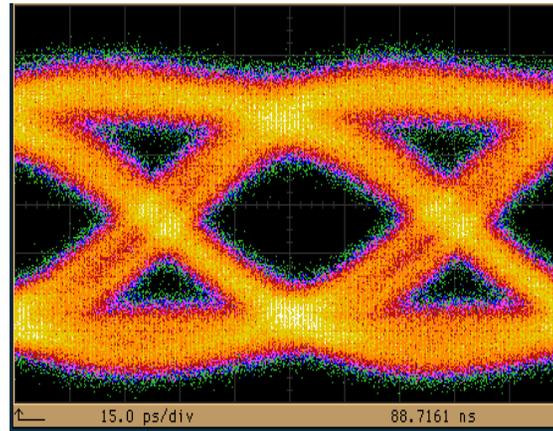


# 12.5 Gb/s Eye Patterns Gore 850 nm VCSELs with Lucent high bandwidth fiber

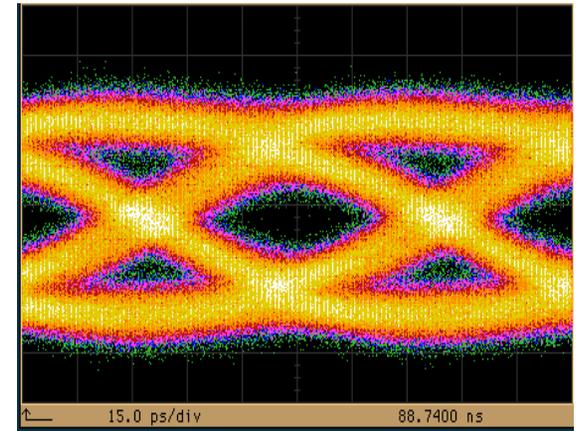
*1 meter length*



*300 meter length*



*400 meter length*



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## *Conclusions*

- *12.5 Gb/s Multimode Transmission Over Reasonable Distances with 850 nm VCSELs is Feasible*
- *Transmission Distance of 400 Meters Has Been Demonstrated at 12.5 Gb/s*
- *More Work is Needed to Determine Robust Bandwidth\*Distance Performance*



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A World of Possibilities

