

# Sumitomo/ExceLight

Reach Feasibility of 1550nm DML for  
10G and beyond

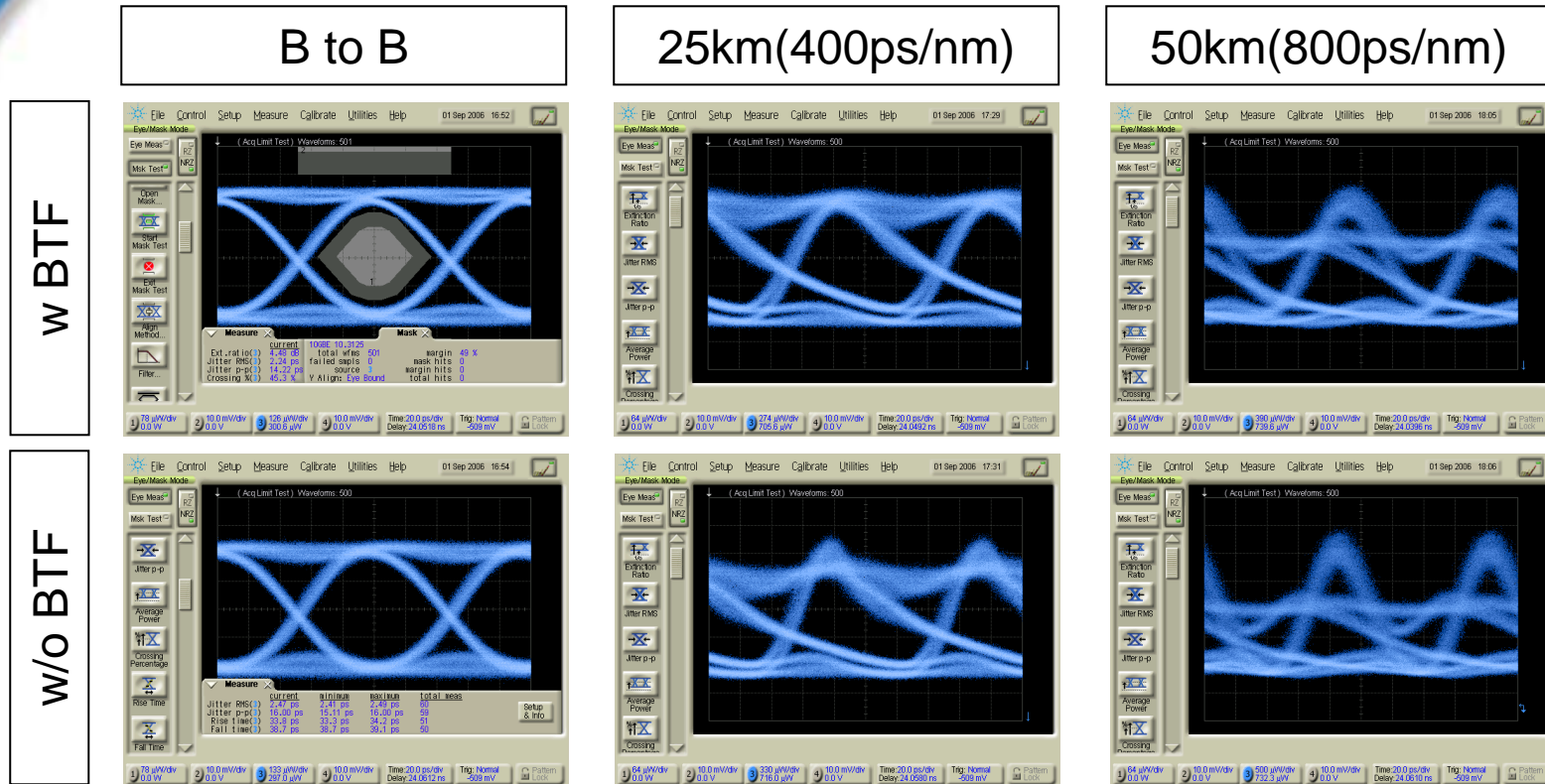


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Eddie Tsumura (VP of Eng. & Mkt.)

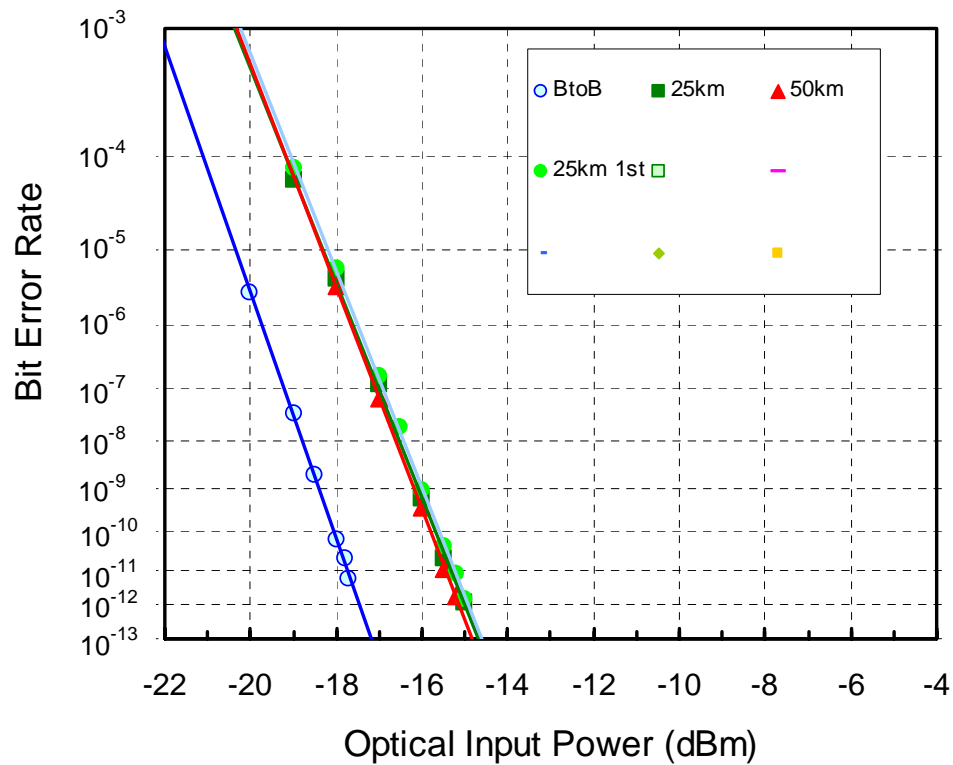


# Optical Waveform of 1550nm DFB-LD - 10.3Gbps, ER=5dB, 25deg.C -



Keeping enough eye opening up to 800ps/nm

# BER Curve of 1550nm DFB-LD - 10.3Gbps, ER=5dB, 25deg.C -



**2dB dispersion penalty at 800ps/nm**

# Proposed Change - Reach (Technical) Feasibility -

Change to "yes"

Change to "yes" or "maybe"

	10km 1310nm	40km 1310nm	10km 1550nm	40km 1550nm
10G DML	yes (10λ span needs semi-cooling)	yes (need new DML & RX APD/SOA)	maybe (need new DML)	no
10G EML	yes	yes (need RX APD/SOA)	yes	yes
20G/25G DML	yes (need new DML)	maybe (need new DML & RX SOA)	no	no
20G/25G EML	yes (need new EML)	yes (need new EML & RX SOA)	yes	yes (need RX DC)
50G DML	no	no	no	no
50G EML	yes (need I/Q ML)	yes (need I/Q ML, RX DC & SOA)	yes (need I/Q ML & RX DC)	yes (need I/Q ML & RX DC)

Change to "maybe"

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