
System testing of Sumitomo 1300nm module

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Mark Nowell

Hewlett-Packard Laboratories

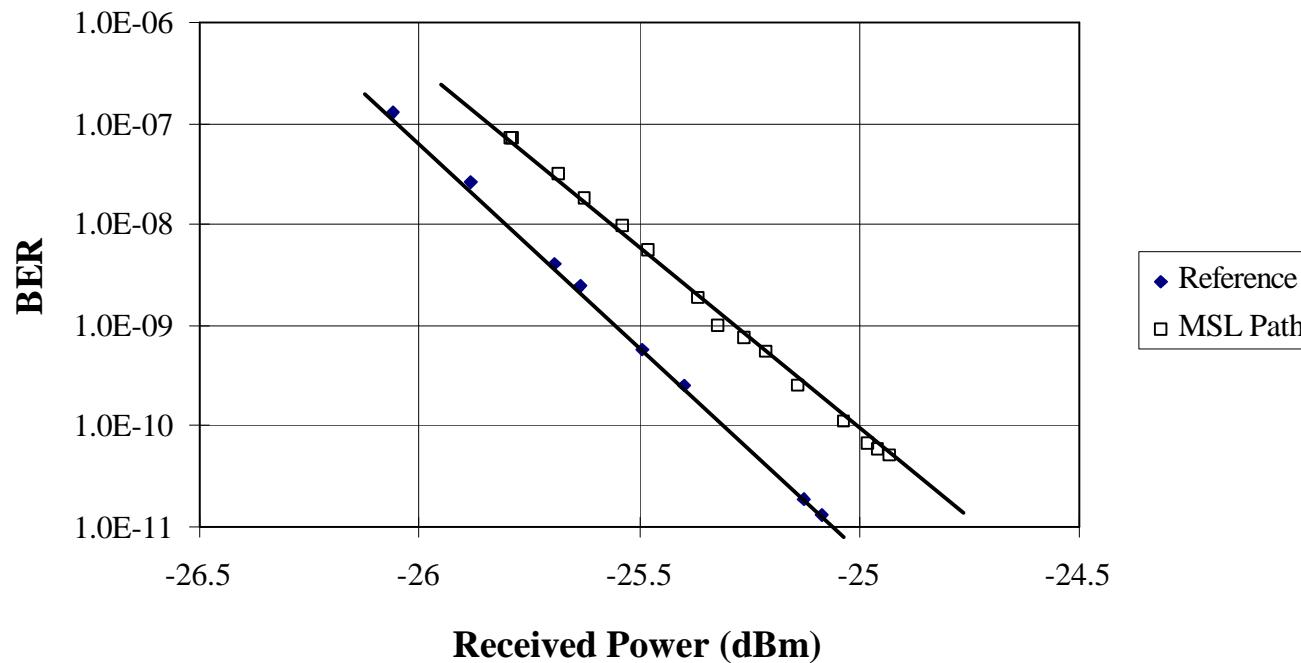
mn@hplb.hpl.hp.com

Paul Pace

Sumitomo Electric

Modal noise testing

1.25 Gb/s, 2⁷-1 PRBS, 50MMF



Tested using
current MNMTG
draft procedure

Modal noise penalty = 0.3dB

Power penalty - simulated dirty connector

- used same testing configuration presented in earlier talk ('Effects of dirty connectors...')
- 'dirt' was a $250\mu\text{m}$ diameter wire which was moved through the beam at image plane (equivalent to $5\mu\text{m}$ line in real connector)
- penalty was measured at different positions of wire using Sumitomo 1300nm FP laser

| Max Loss (dB) | Max Penalty (dB) | |
|---------------|------------------|--------|
| 1300nm OFL | 1300nm RML | 1300nm |
| 1.2 | 2.6 | 1.9 |

Only a penalty.
Not a floor.

As with all other system measurements, fiber shaking and temperature ramping were used to induce modal noise if present.