XLAUI / CAUI Measured Results

Ryan Latchman
ryan.latchman@gennum.com
1. **Show Measured Results using XLAUI CDR**
   1. Compare output with Tx Eye Mask
   2. Compare output + 15” Trace with Rx Eye Mask

2. **Measurement Setup:**
   1. Data: 10.3125Gb/s PRBS31
FR4 Trace Loss

Loss data of 5 mil stripline

Loss vs. Frequency (Hz)

-30, -25, -20, -15, -10, -5, 0

5in, 15in, 25in, 40in, 60in

0 to 6x10^9 Hz
Eye Mask Measurements: No De-emphasis

- 10G Channels are running asynchronously
  - Unused Outputs Terminated on Evaluation Board
Eye Mask Measurements: De-emphasis

- 10G Channels are running asynchronously
  - Unused Outputs Terminated on Evaluation Board
Conclusions

- Preliminary measurements indicate XLAUI / CAUI limits have adequate margin for dedicated silicon
  - Verified using XLAUI CDR
- Input from ASIC & System vendors also needed
- Recommend implementation flexibility for specification:
  - XAUI Example: “The driver shall satisfy either the near-end eye template and jitter requirements, or the far-end eye template and jitter requirements.”