100GEL OSFP MDI Proposal for 802.3ck

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OSFP Features and Benefits

- OSFP interface employs 16 high-speed pairs currently operating at 25Gb/s NRZ or 50Gb/s PAM-4 for 200Gb and 400Gb aggregated bandwidth solution
- Total of 60 contacts per port defined as 16 differential pairs, 4 control lines, and 4 power pins
- Heat sinks integrated into the module housing
- For full details please refer to the presentation below

http://www.ieee802.org/3/cd/public/Mar17/mcsorley_3cd_01a_0317.pdf

100GEL Channel Reach

- The C2M and CR channels have been presented as a starting point for the 100GEL working group
- The channels are simulated with the OSFP connector to evaluate performance against prospective 100GEL requirements
- For more channel details please refer to the presentation below

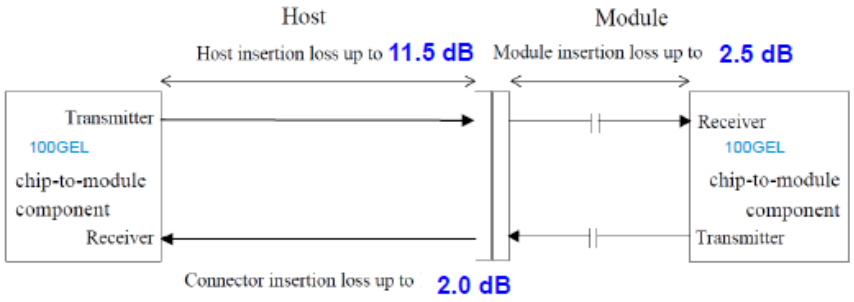


Figure 1: 100GEL C2M **TP0-TP1a** insertion loss budget at 26.56 GHz

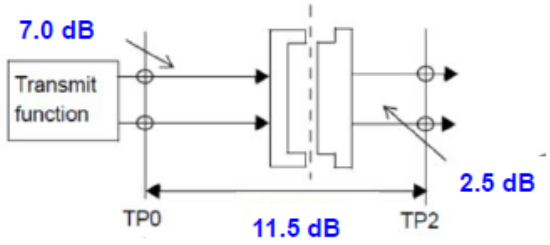
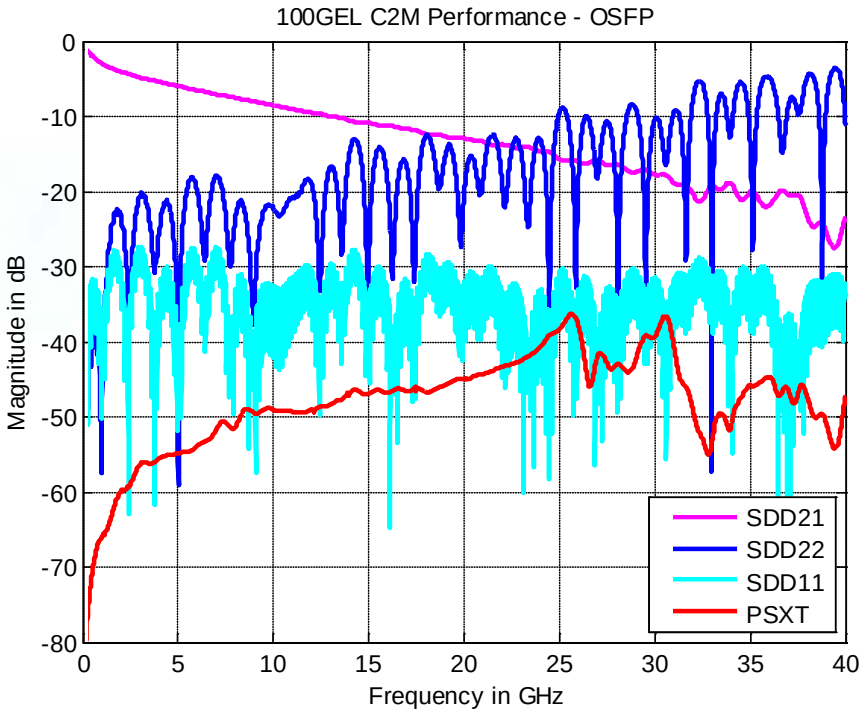


Figure 2: 100GEL CR **TP0-TP2** insertion loss budget at 26.56 GHz

http://www.ieee802.org/3/ck/public/18_07/lim_3ck_01b_0718.pdf

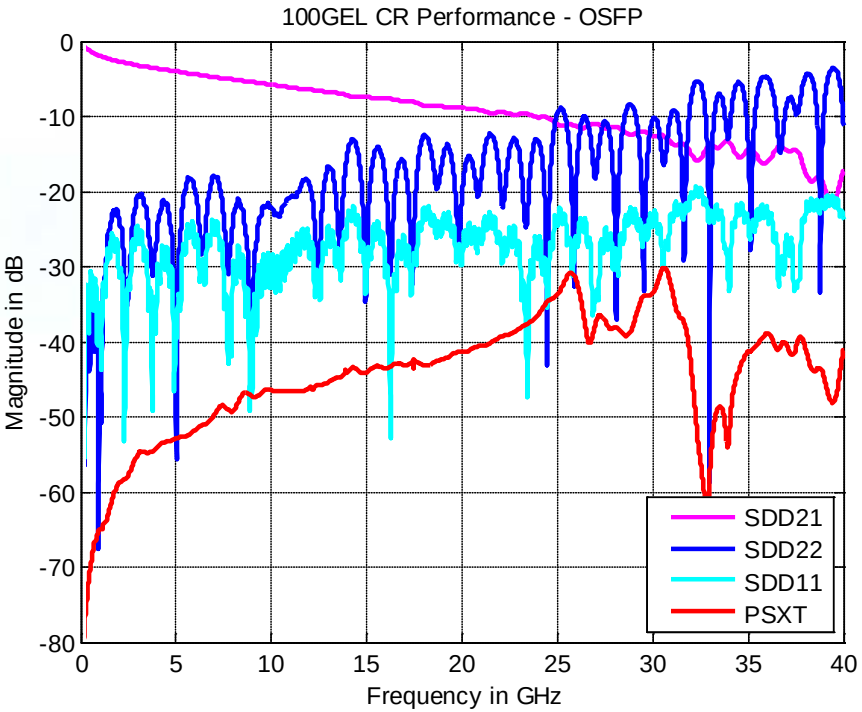
100GEL TP0-TP1a Channel

- The TP0-TP1a represents the C2M channel
- **Approximate IL is -16dB (@26.56GHz)**
- Return Loss from both sides is shown
  - SDD11 is from the Host
  - SDD22 is from the Module
- PSXT is calculated from the worst-case far-end crosstalk.
  - The connector model used is 4-pair to capture the 5-most dominant aggressors



100GEL TP0-TP2 Channel

- The TP0-TP2 represents the CR channel
- **Approximate IL is -11.5dB (@26.56GHz)**
- Return Loss from both sides is shown
  - SDD11 is from the Host
  - SDD22 is from the Module
- PSXT is calculated from the worst-case far-end crosstalk.
  - The connector model used is 4-pair to capture the 5-most dominant aggressors



OSFP Status

- Rev. 1.92 out for vote to publish as Rev. 2.0.
- OSFP MSA (www.osfpmsa.org)
- Samples currently available
- All OSFP MSA documentation will be available from the OSFP MSA website above
  - Module Specification
  - Management Specification
  - Design Files
  - Press Releases

Proposal for OSFP MDI to 802.3ck

- Per the data in this report, we would recommend to include OSFP as a target MDI to support copper objectives for 100GEL applications
- Applicable for:
  - 100GBASE-CR
  - 200GBASE-CR2
  - 400GBASE-CR4
  - Octal Lane MDIs used for high density applications
- The MDI section should look similar to 802.3cd Annex 136C
- Formal comments with proposed language, figures, and table to be provided as necessary