SPE Multidrop Enhancements
Mixing Segment Considerations
LTspice Model Validation

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Purpose

- Measurement configuration results for LTspice model validation

Measurement configuration

Trunk

| 100 Ω | | TC | | 100 Ω |

Drop/Stub

MDI =MDI connector

TC = trunk connection

MDI — sensor
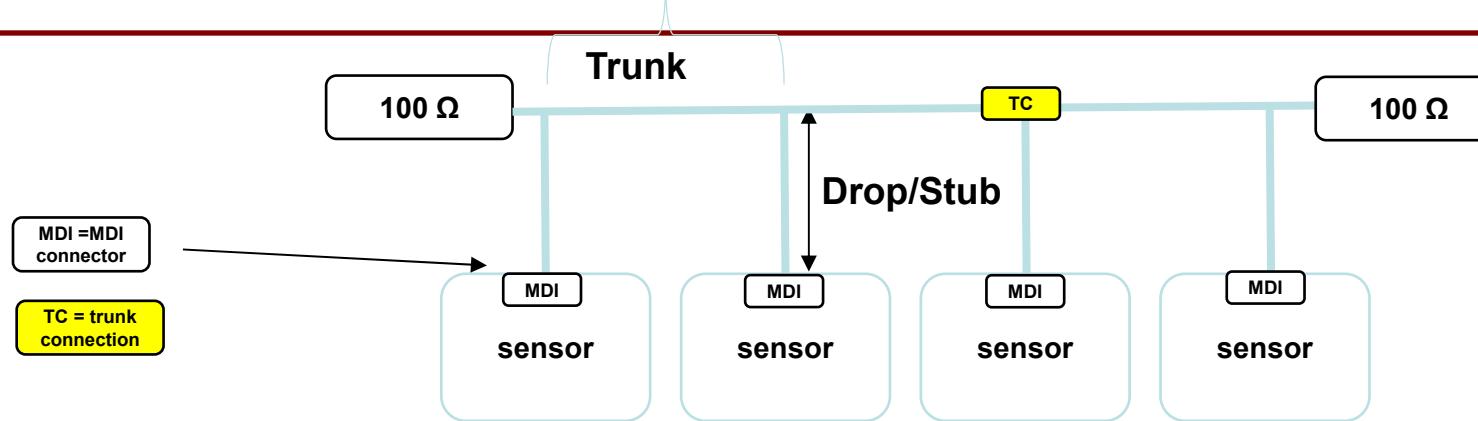
NODE Attachment

10K Load

30 cm drop cables

PORT1

PORT2

60 cm sections

10 Mb/s SPMD Enhancement TG

LTspice Model

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Return Loss Measurement and Model

10 Mb/s SPMD Enhancement TG
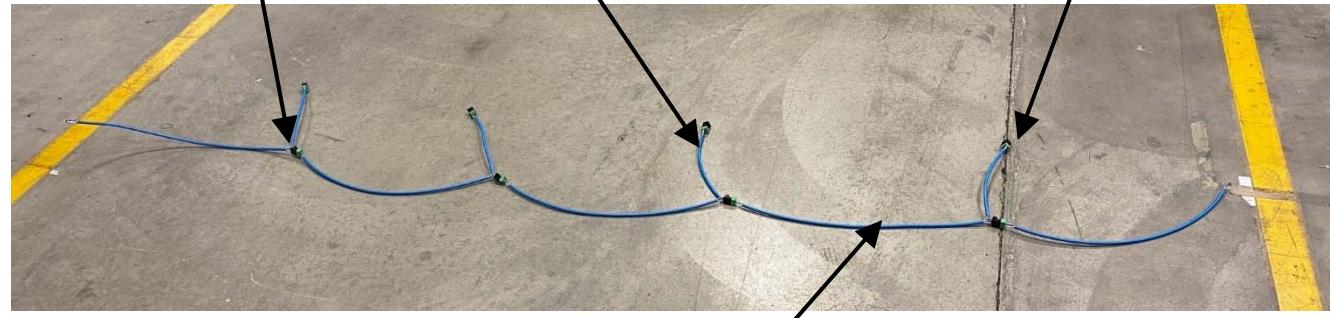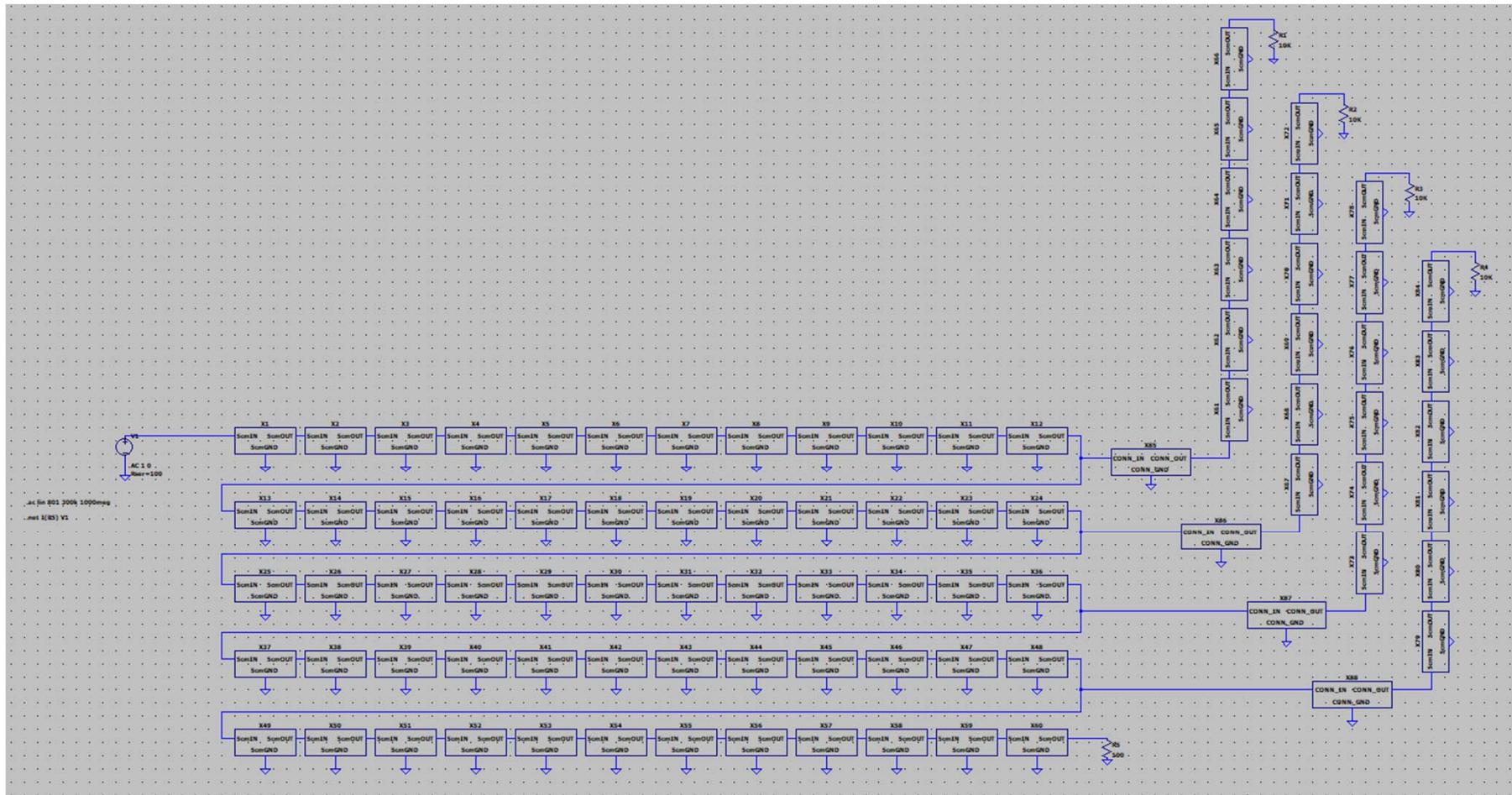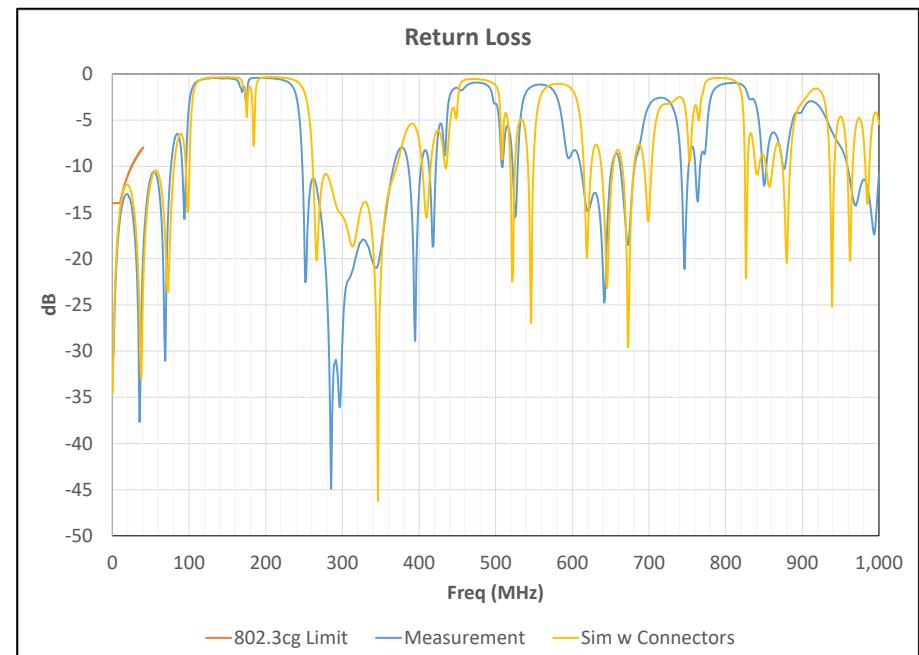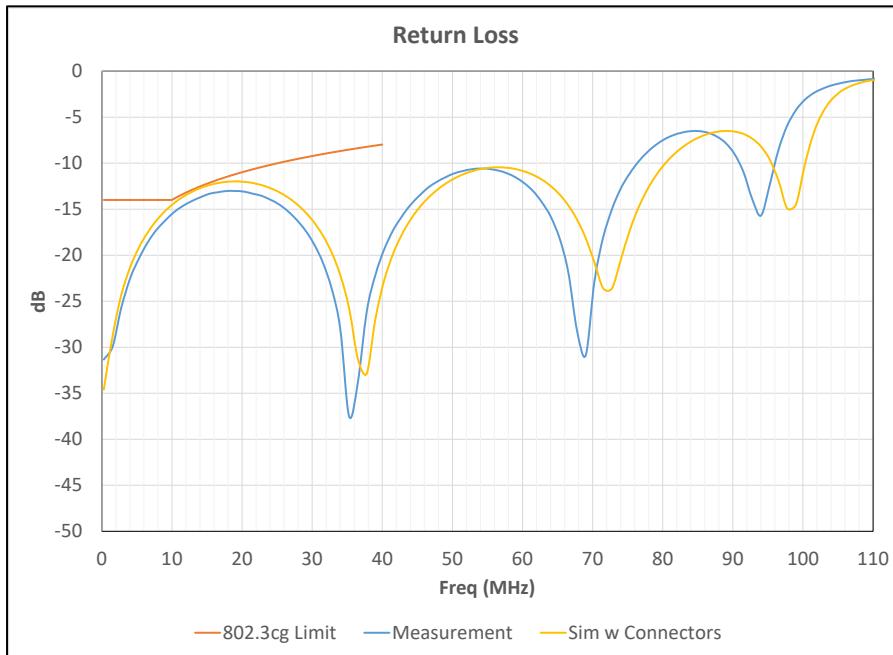
Insertion Loss Measurement and Model

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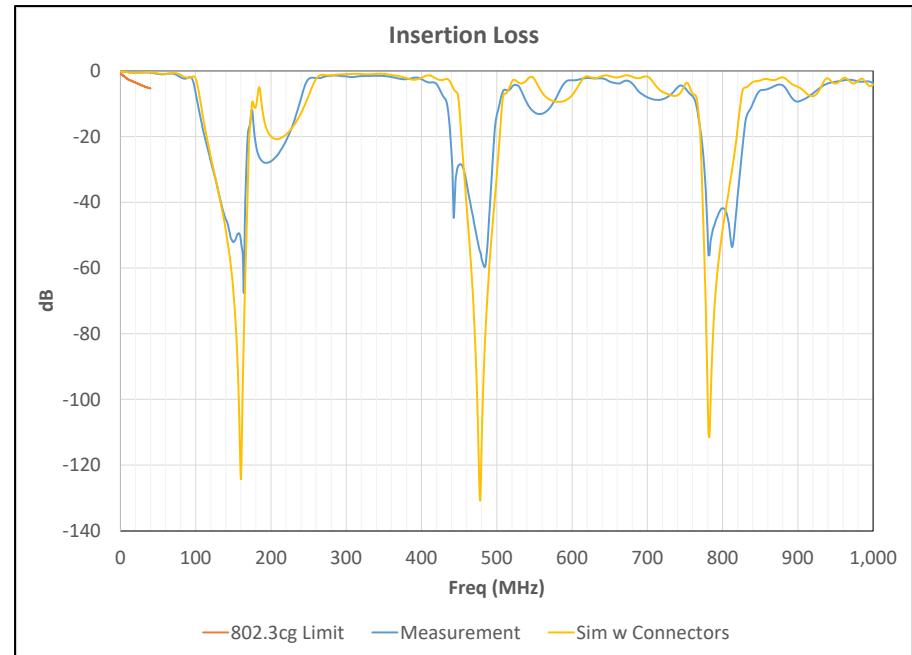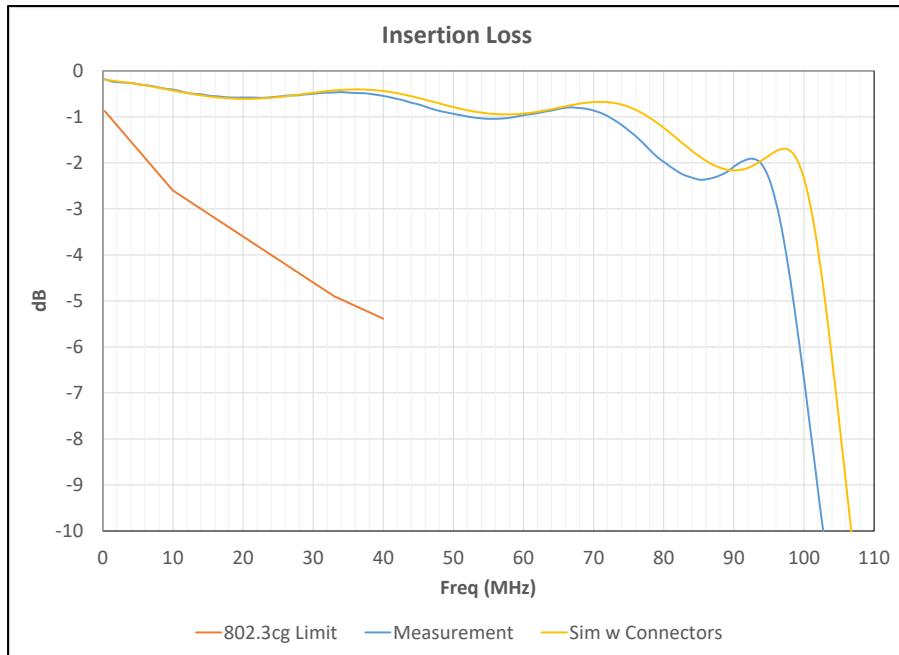
Differences between Sym and Measurement

- Test Fixture at PORT1 & PORT2 in measurements
  - Short FR4 T-Lines (~ 1 inch)

- Capacitance at Node Termination (TBD)
  - Not modeled in simulation

- Precision of 30cm & 60cm cable lengths
  - Not "EXACT" like simulation
  - Nulls not as deep (measurement dynamic range)

10 Mb/s SPMD Enhancement TG

Summary

- Measurement configuration results for LTspice model validation
- Next Steps
  - Transient analysis for RX eye