

Suggested Normative values for MTF ILdd in 802.3dj Annex 179B

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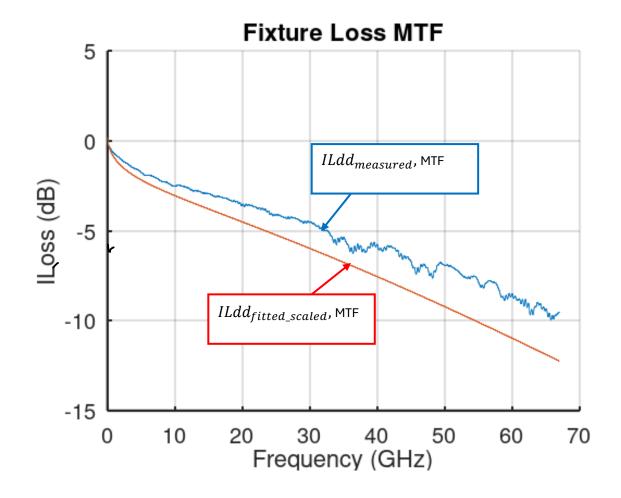
#### Intent

- Suggest ILdd reference line and fitted equation for Mated compliance Test Fixtures (MTF) to fill TBD in 179B.4.1
  - Based on updated S4P data

## MTF Measurement Setup & Curve Fitting Notes

- Prototype HCB and MCB built with second generation module connector
- 1.85 mm instrument connectors
- S4P data measured to 67 GHz stop freq.; 10 MHz step size
- MCB not tuned to target ILdd
- Typical lane selected minor deviation between lanes

### MTF ILdd Plots



# MTF ILdd fitted reference line equation

$$ILdd_{mtf}(f) = -0.35400 + 1.51560\sqrt{f} - 0.26170f + 0.04290f^{1.5} - 0.00129f^{2}$$
 
$$ILdd_{mtf}(53.125GHz) = 9.7506dB$$

### Next Steps

- Complete ILdd measurements of HCB only and MCB with module connector using proper de-embedding
  - Condense S4P data and derive fitted equations for each