

Draft 3.0 Test Fixture ICN

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IEEE 802.3ba

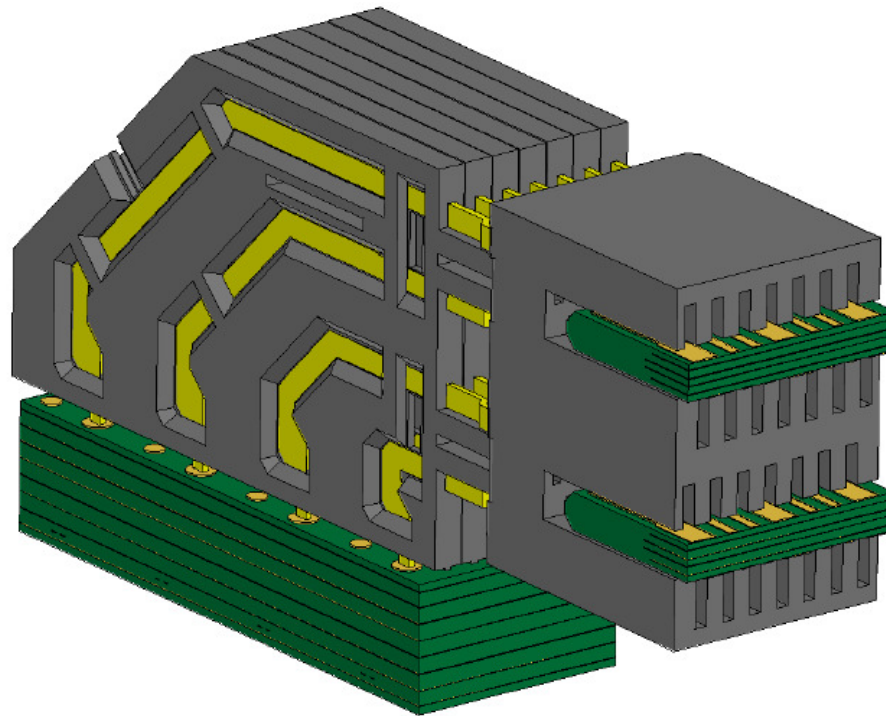
New Orleans, LA

Draft 3.0 4-lane and 10-lane Test Fixture ICN

- Latest revision (Draft 3.0) of IEEE 802.3ba adds new crosstalk metric, Integrated Crosstalk Noise (ICN)
- Measurements of 4-lane and 10-lane MDI cable assembly near-end and far-end crosstalk taken for comparison against specification requirements
- Based on fixture capability, 10-lane MDI connector mated-pair simulations performed
 - Trace-PCB attach vias-host connector-breakout card
- Resultant data applied to ICN calculation, compared against spec

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- Simulation of 10-lane MDI mated connector (on 3mm bottom-route host PCB) with IL_{MTFmin} trace loss shows capability of 4.626 mV sigma-fx



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Connector	Sigma_fx ICN
Measured 10-lane MDI (rev 0.5 MCB/HCB)	8.627 mV
Right-Angle 10-lane MDI (Modeled, rev 1.0 MCB/HCB)	4.626 mV
Enhanced 10-lane MDI (Modeled)	2.024 mV

- Spec Max 3.5 mV (with 2 dB minimum loss at 5.15625 GHz)
- Tx7 pair used as crosstalk victim