OSFP MDI Proposal Electrical Data

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Amphenol®
High Speed Interconnects

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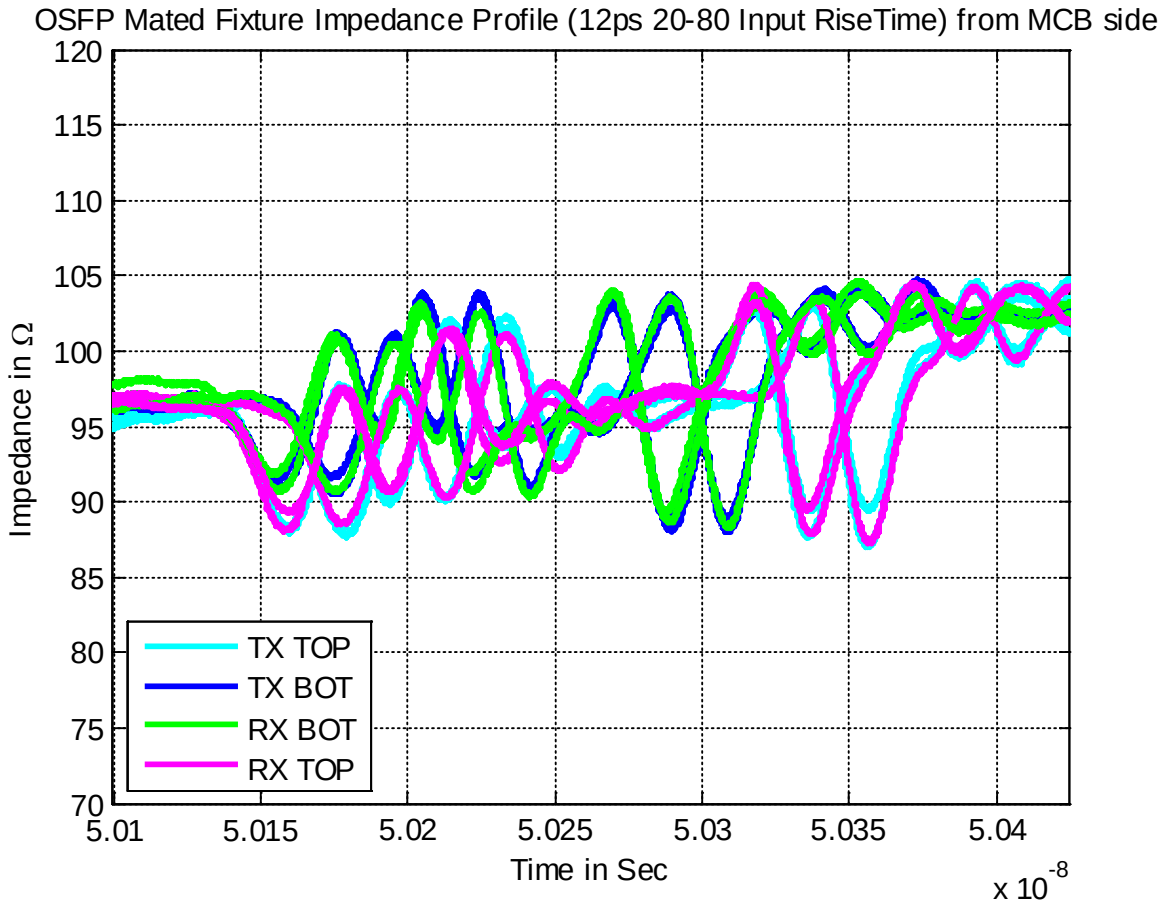
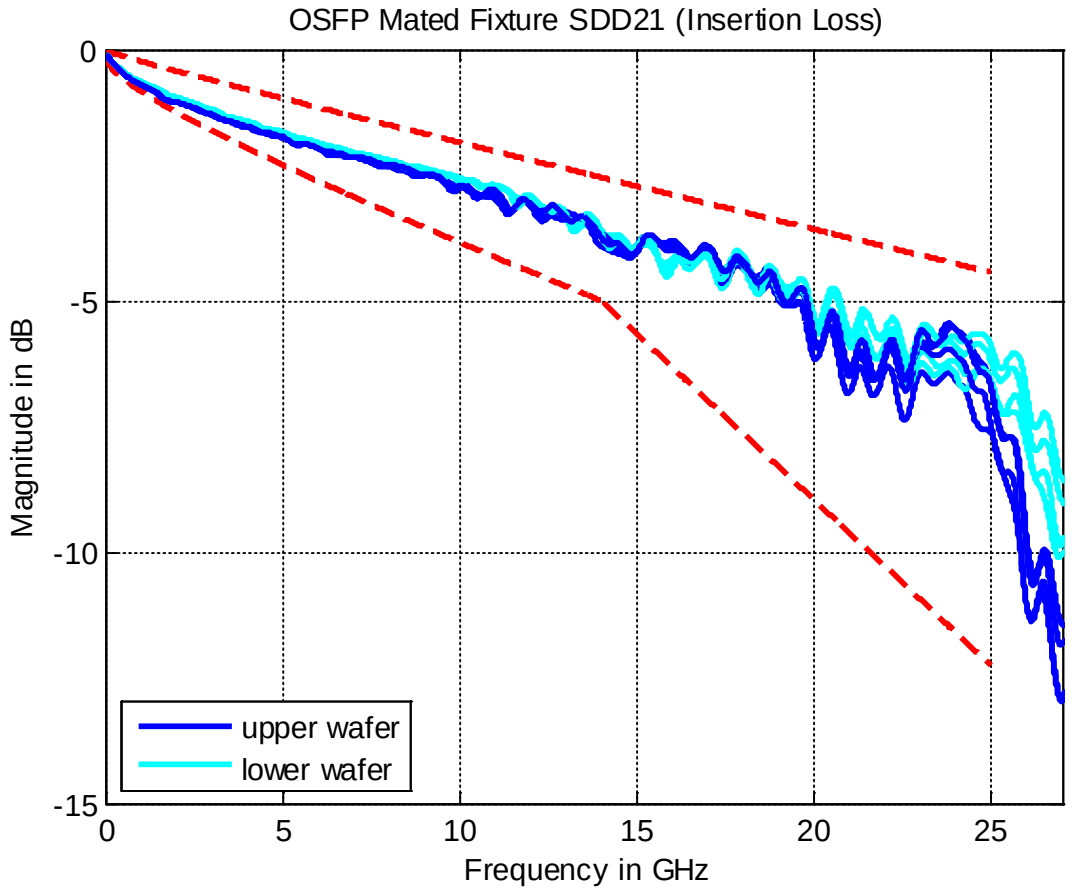
Full Measurement Mated MCB-HCB

Impedance Profile



TX1	TX3	TX5	TX7			RX8	RX6	RX4	RX2
TX2	TX4	TX6	TX8			RX7	RX5	RX3	RX1

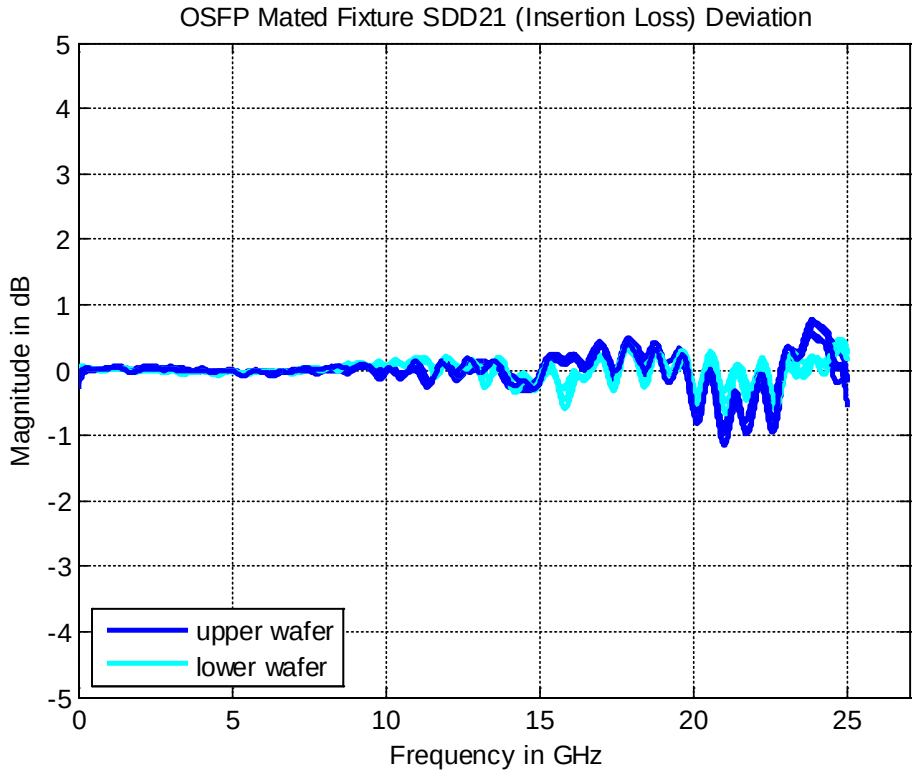
Insertion Loss

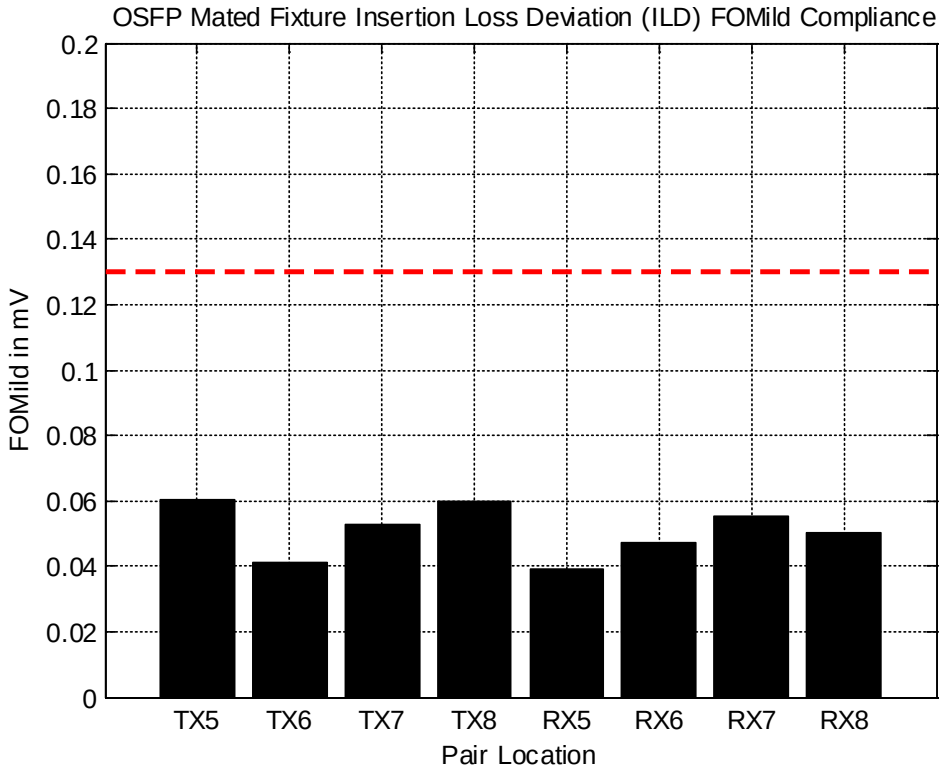


Measured against IEEE802.3cd current

TX1	TX3	TX5	TX7			RX8	RX6	RX4	RX2
TX2	TX4	TX6	TX8			RX7	RX5	RX3	RX1

Insertion Loss Deviation

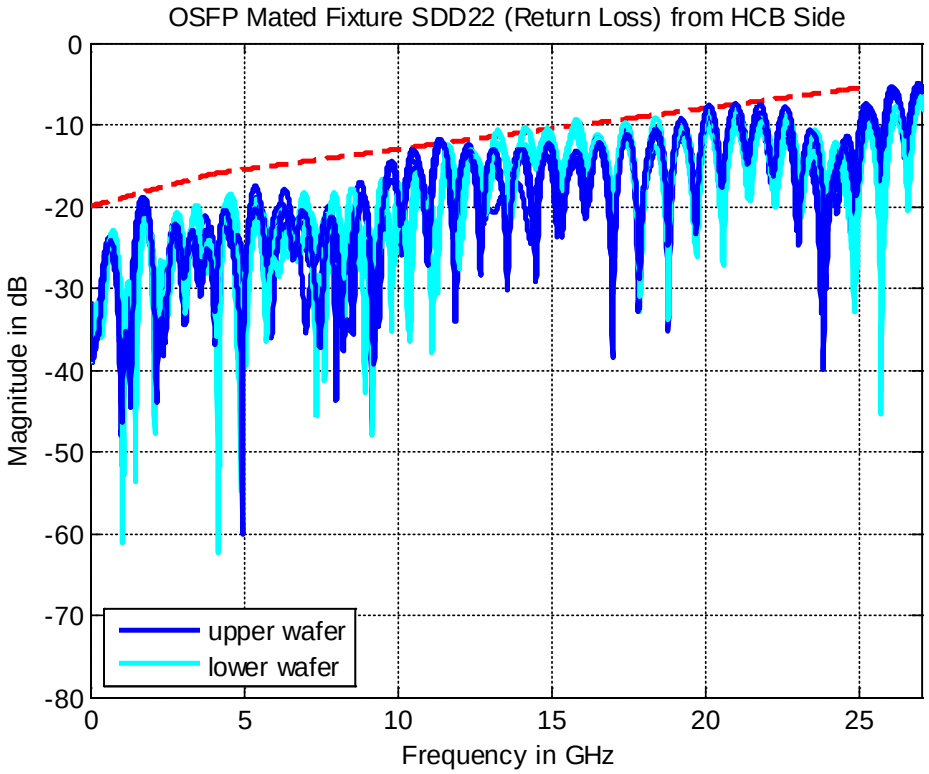


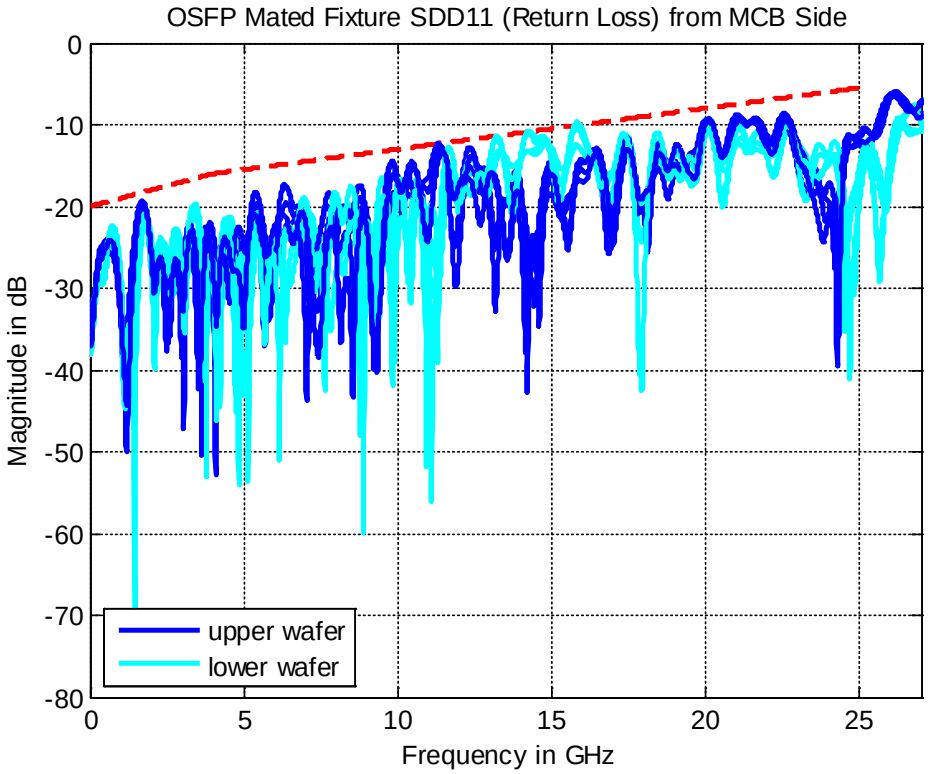


Measured against IEEE802.3cd current

TX1	TX3	TX5	TX7			RX8	RX6	RX4	RX2
TX2	TX4	TX6	TX8			RX7	RX5	RX3	RX1

Differential Mode Return Loss

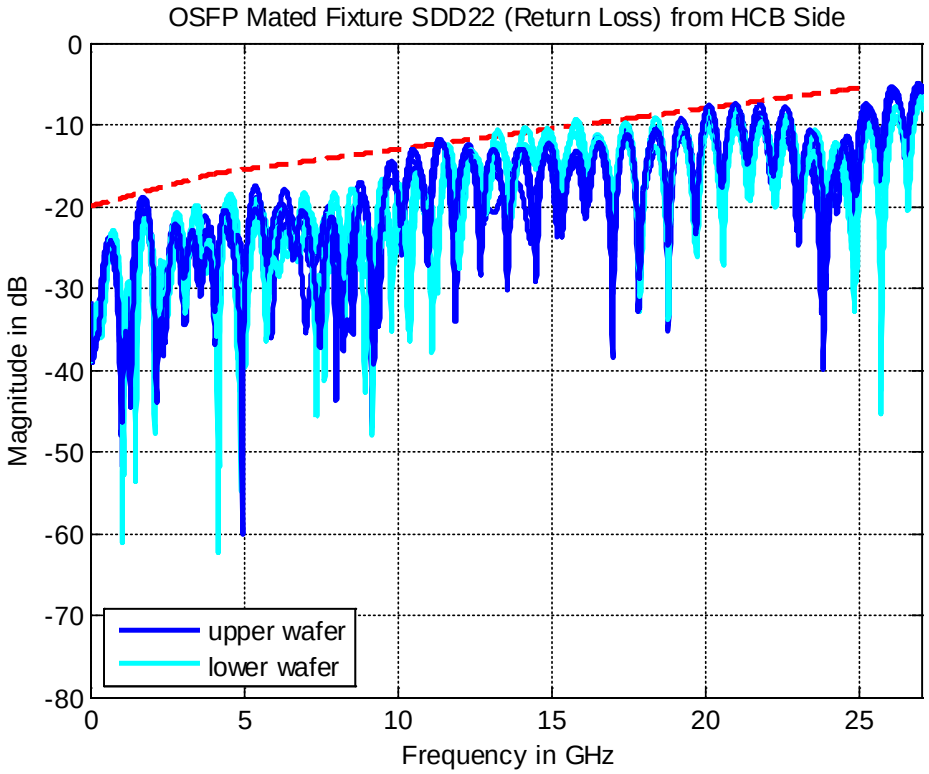


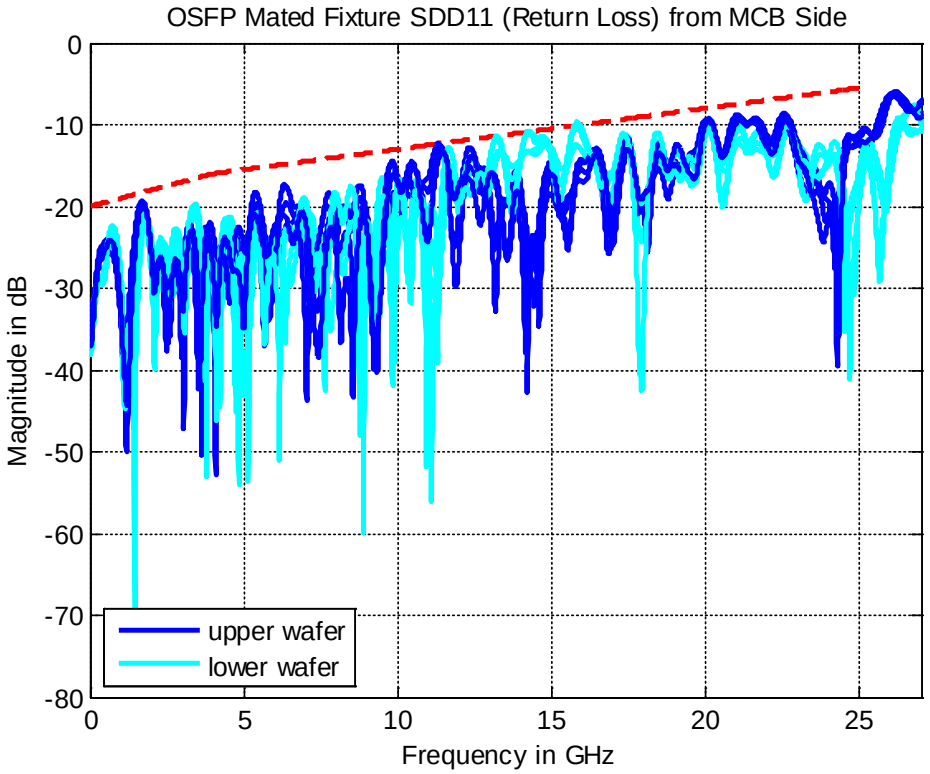


Measured against IEEE802.3cd current

TX1	TX3	TX5	TX7			RX8	RX6	RX4	RX2
TX2	TX4	TX6	TX8			RX7	RX5	RX3	RX1

Differential Mode Return Loss

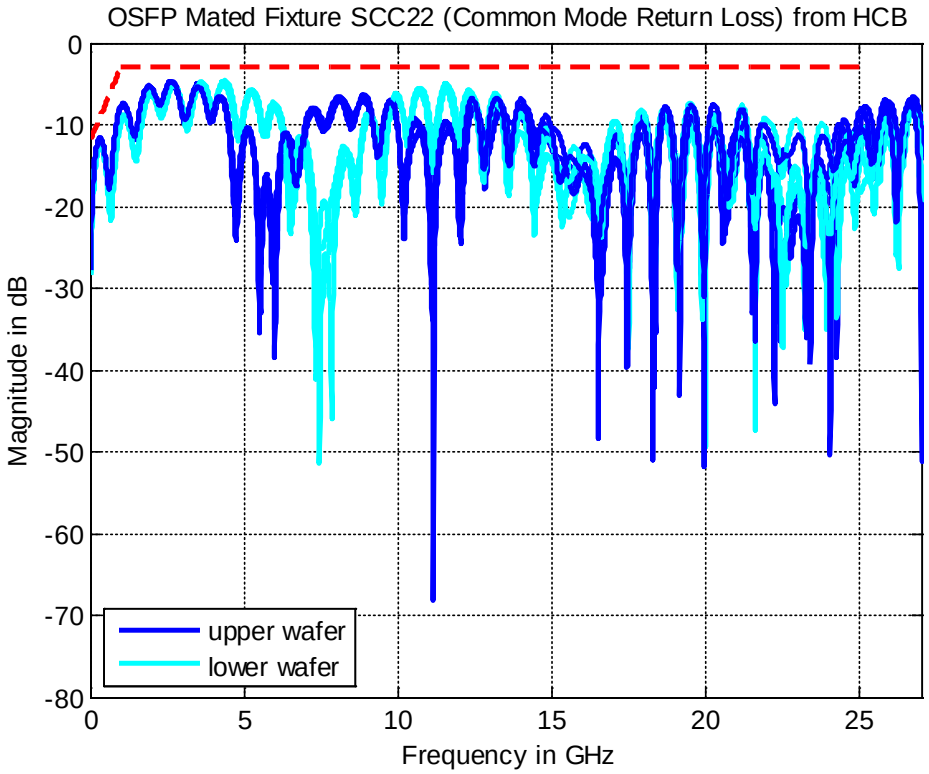


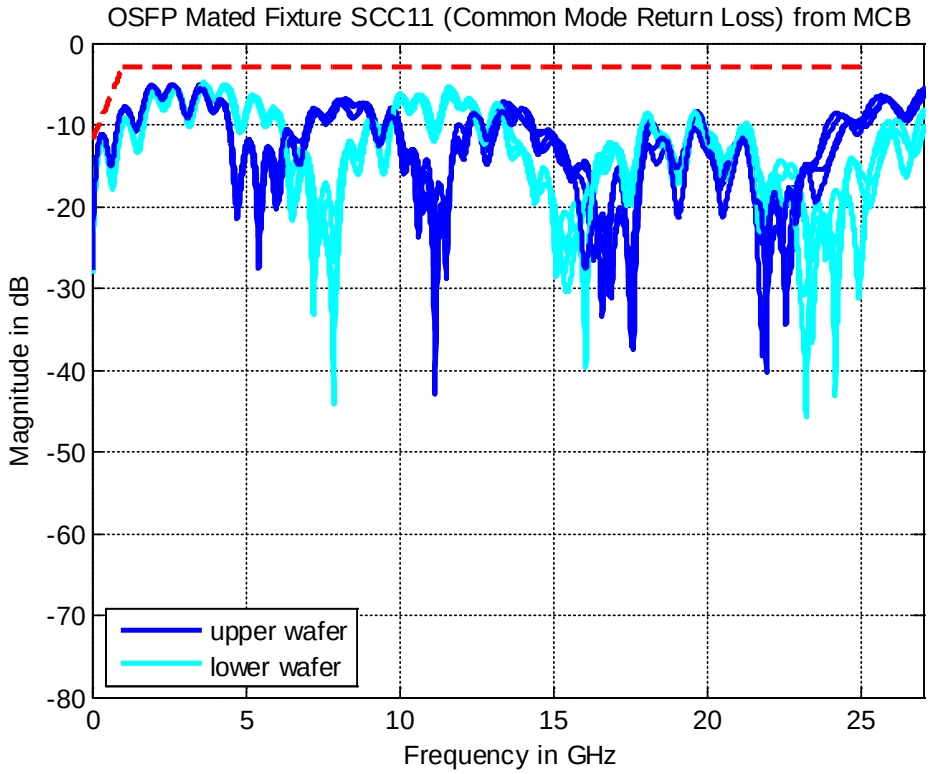


Measured against IEEE802.3cd current

TX1	TX3	TX5	TX7			RX8	RX6	RX4	RX2
TX2	TX4	TX6	TX8			RX7	RX5	RX3	RX1

Common Mode Return Loss

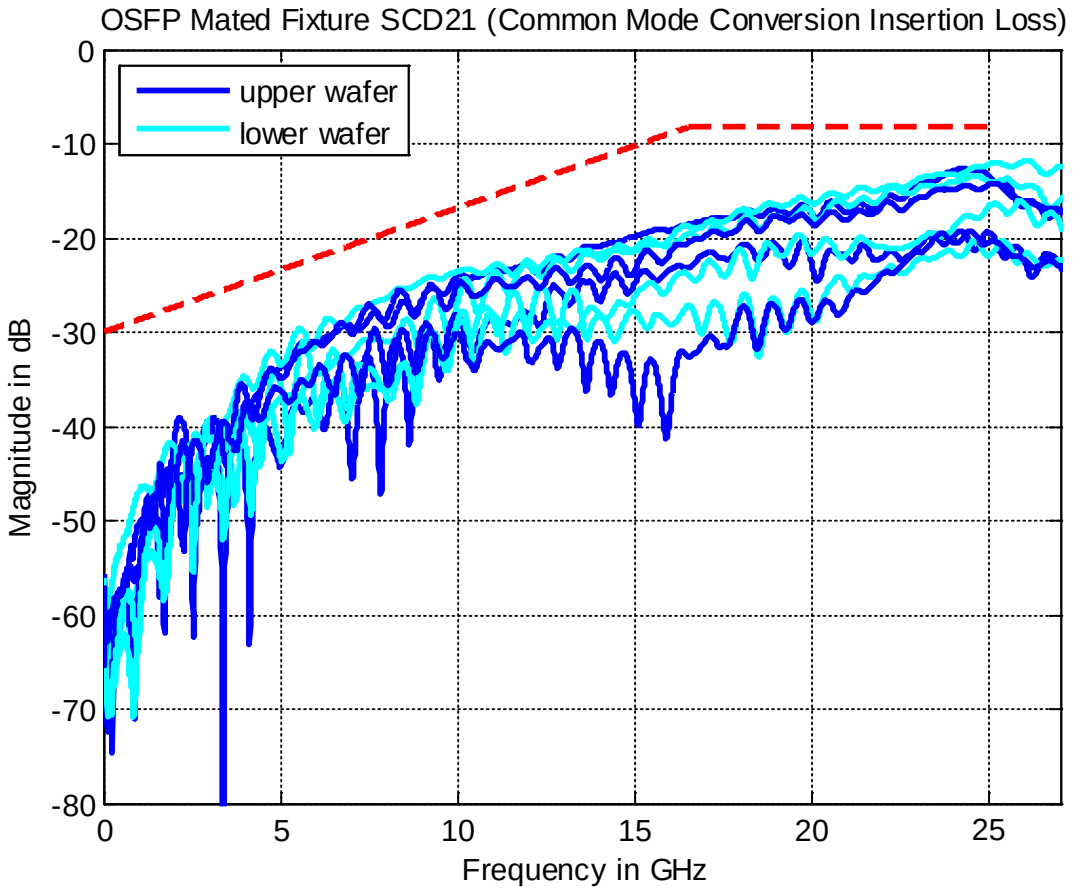




Measured against IEEE802.3cd current

TX1	TX3	TX5	TX7			RX8	RX6	RX4	RX2
TX2	TX4	TX6	TX8			RX7	RX5	RX3	RX1

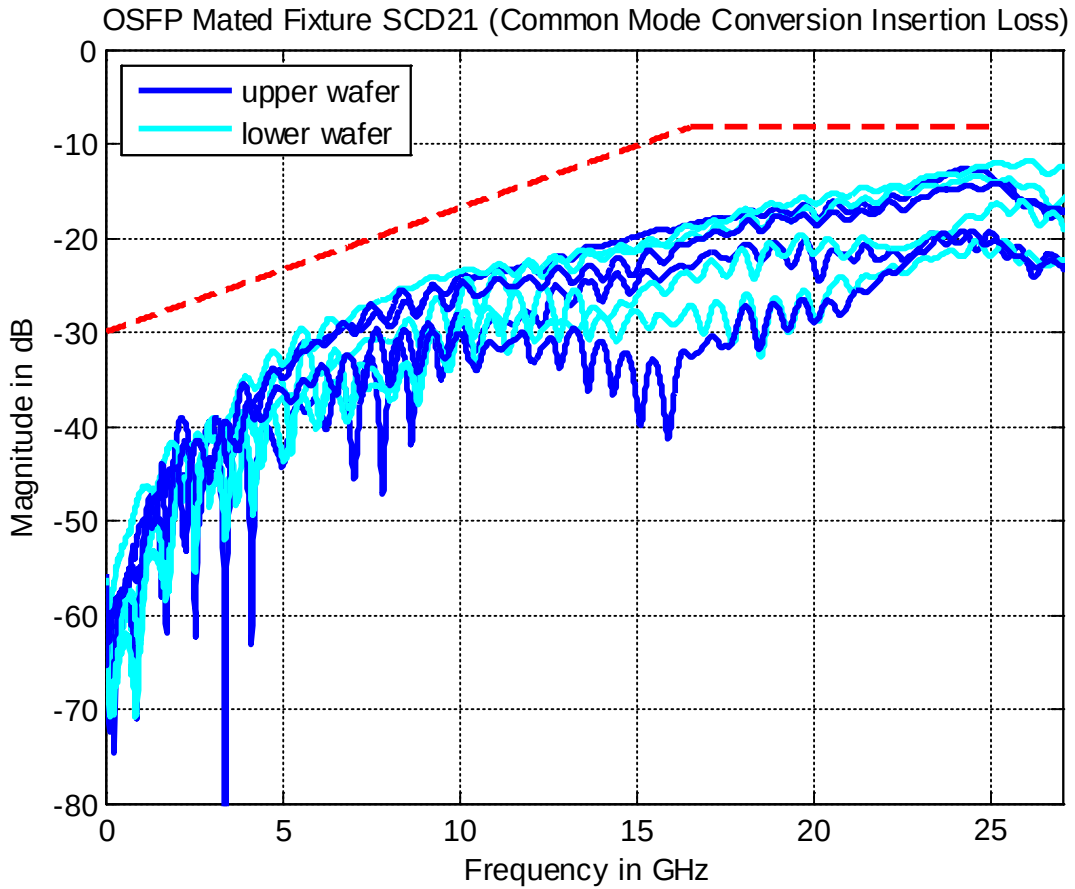
Mode Conversion Insertion Loss



Measured against IEEE802.3cd current

TX1	TX3	TX5	TX7			RX8	RX6	RX4	RX2
TX2	TX4	TX6	TX8			RX7	RX5	RX3	RX1

Mode Conversion Insertion Loss



Measured against IEEE802.3cd

TX1	TX3	TX5	TX7			RX8	RX6	RX4	RX2
TX2	TX4	TX6	TX8			RX7	RX5	RX3	RX1

802.3cd ICN Calculation

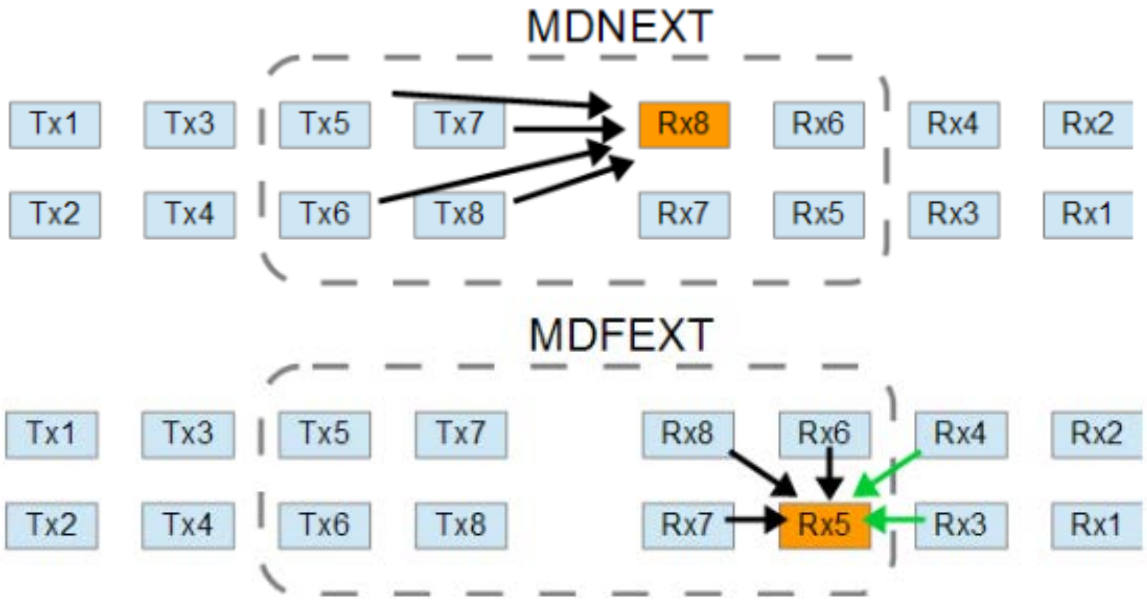
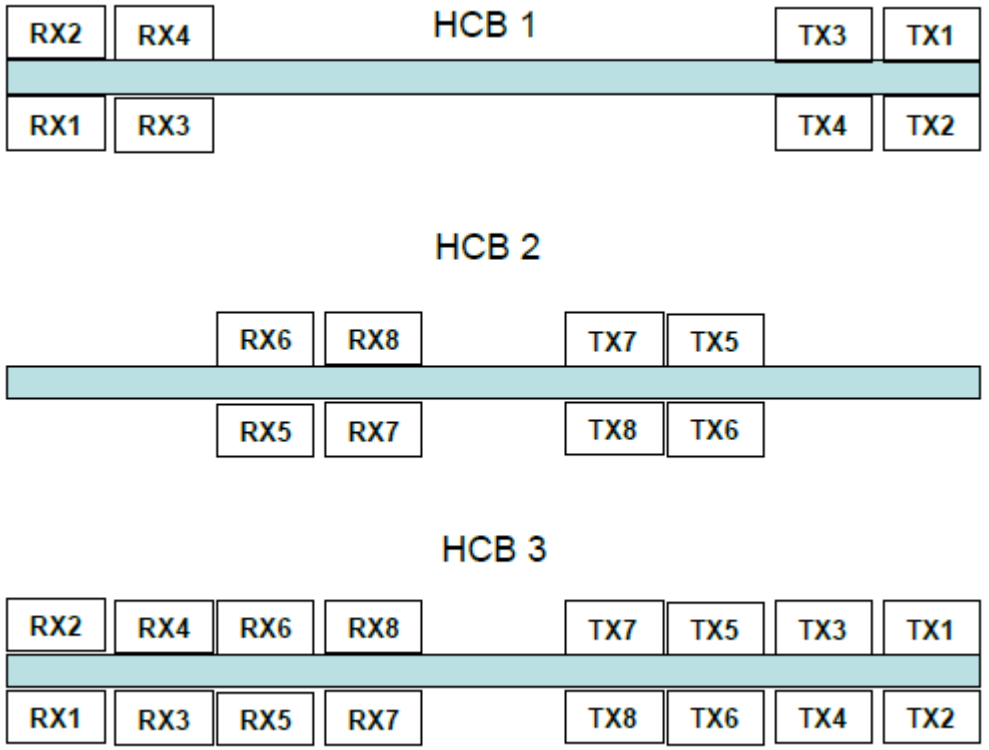
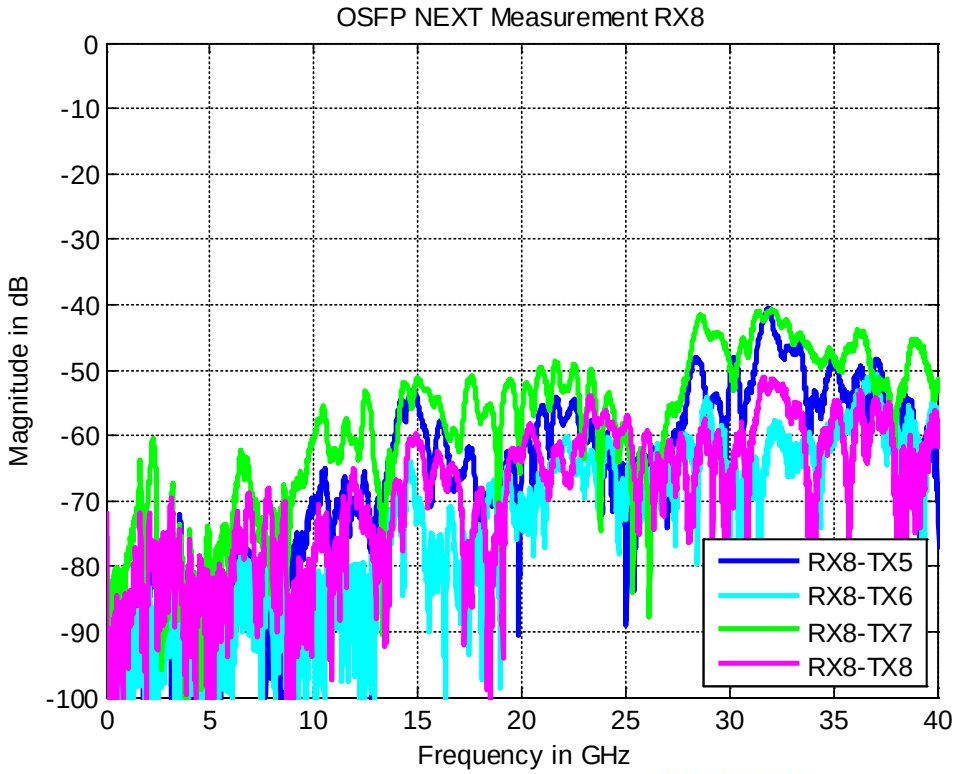


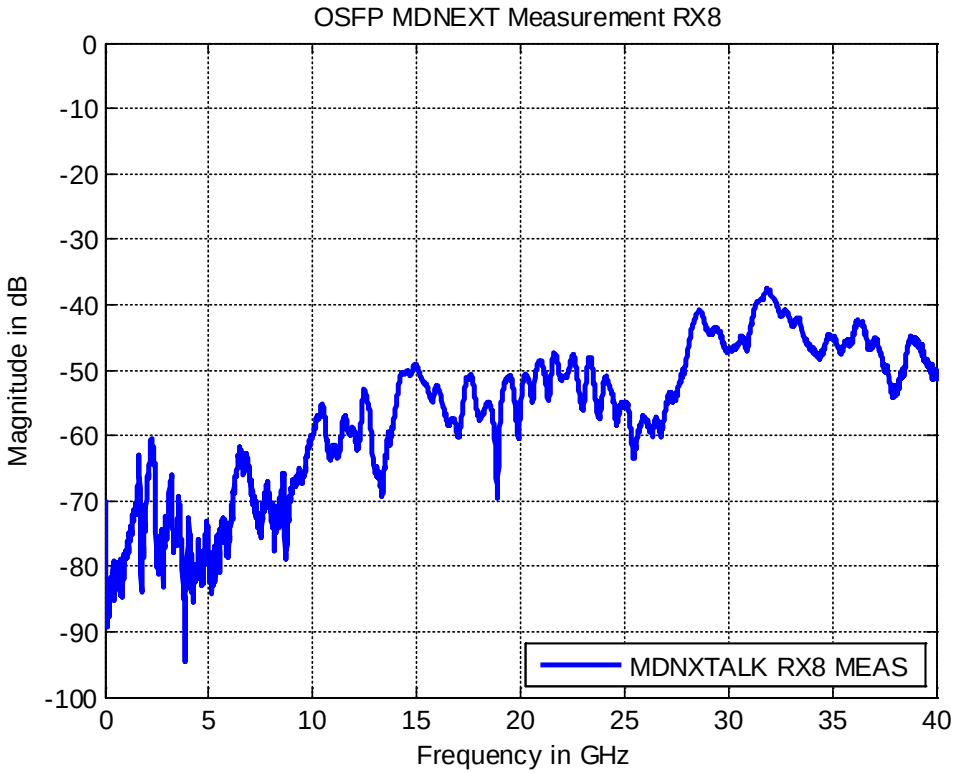
Table 92–13—Mated test fixtures integrated crosstalk noise

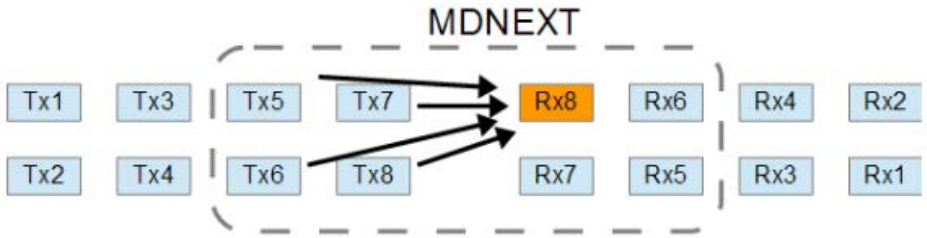
Parameter	100GBASE-CR4	Units
MDNEXT integrated crosstalk noise voltage	less than 1.8	mV
MDFEXT integrated crosstalk noise voltage	less than 4.8	mV



802.3cd ICNn measurements RX8



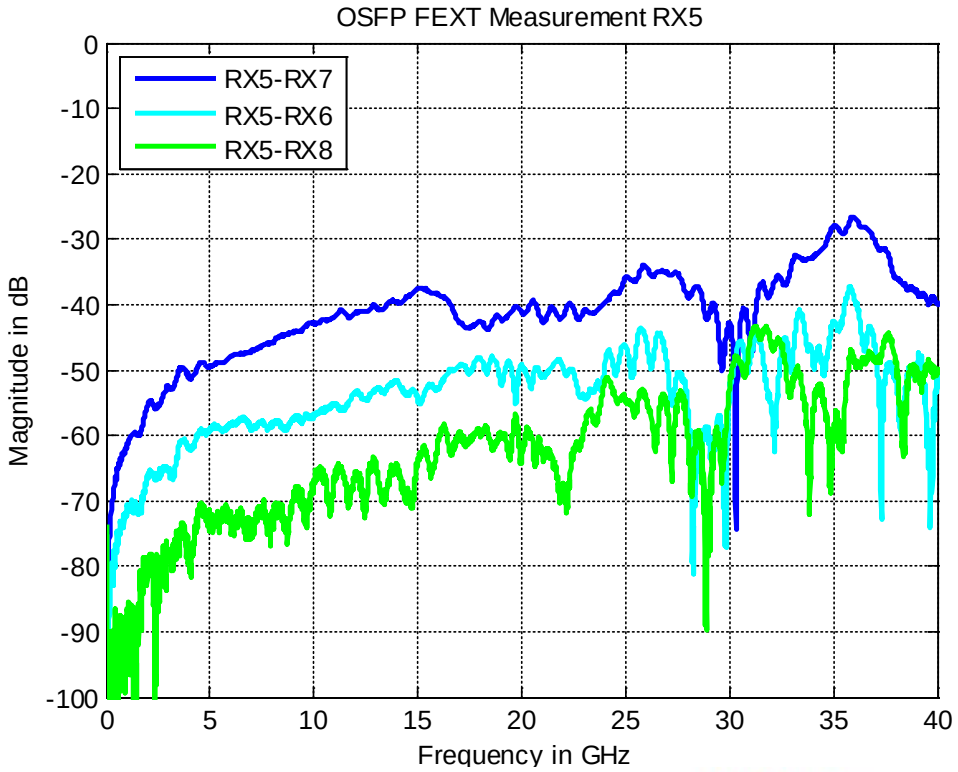


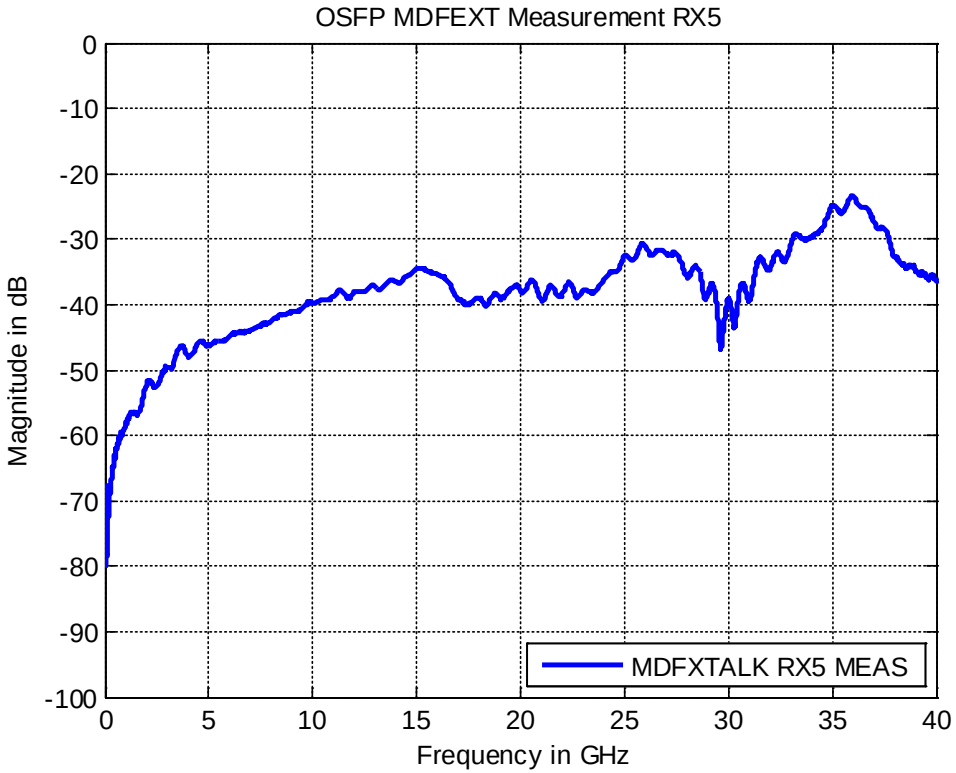


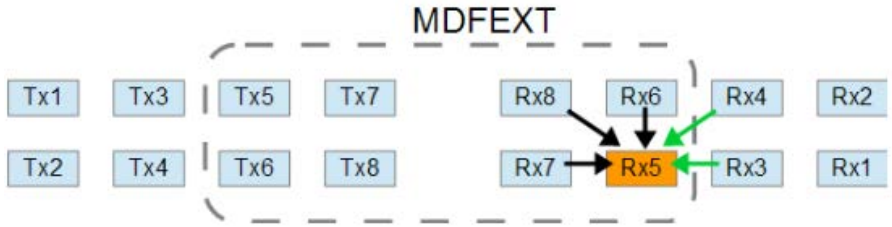
ICNn = 0.4552mV

Measured against IEEE802.3cd

802.3cd ICNf measurements RX5







ICNf = 4.3308mV

Measured against IEEE802.3cd

Simulated Connector Measured Test Fixture Mated MCB-HCB

802.3cd ICNf simulations RX6

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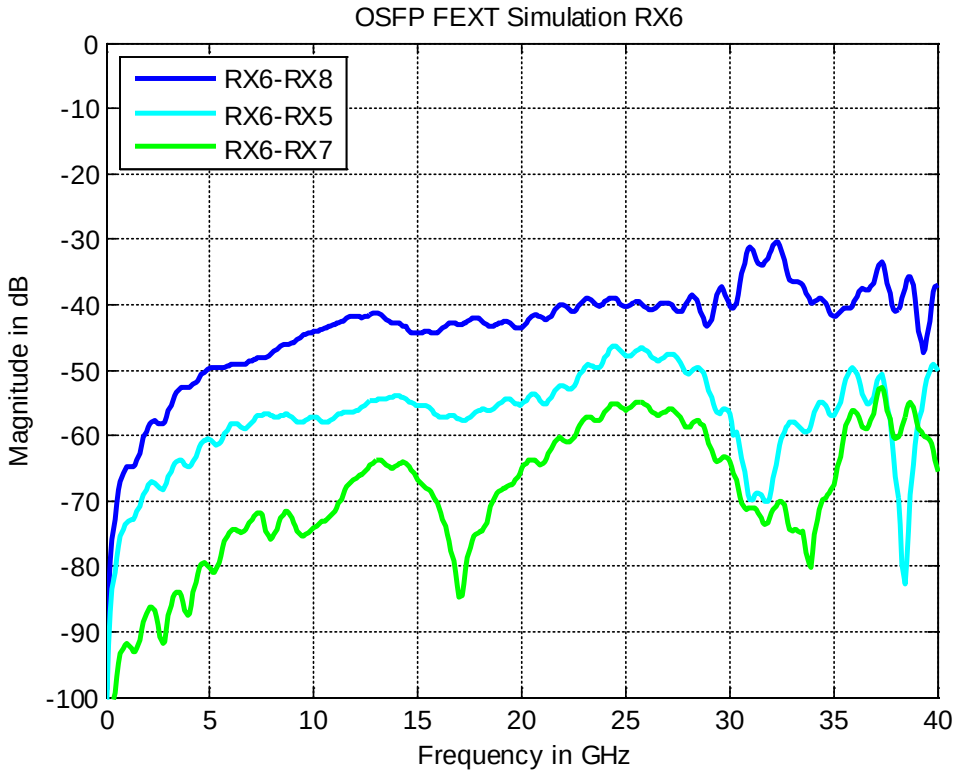
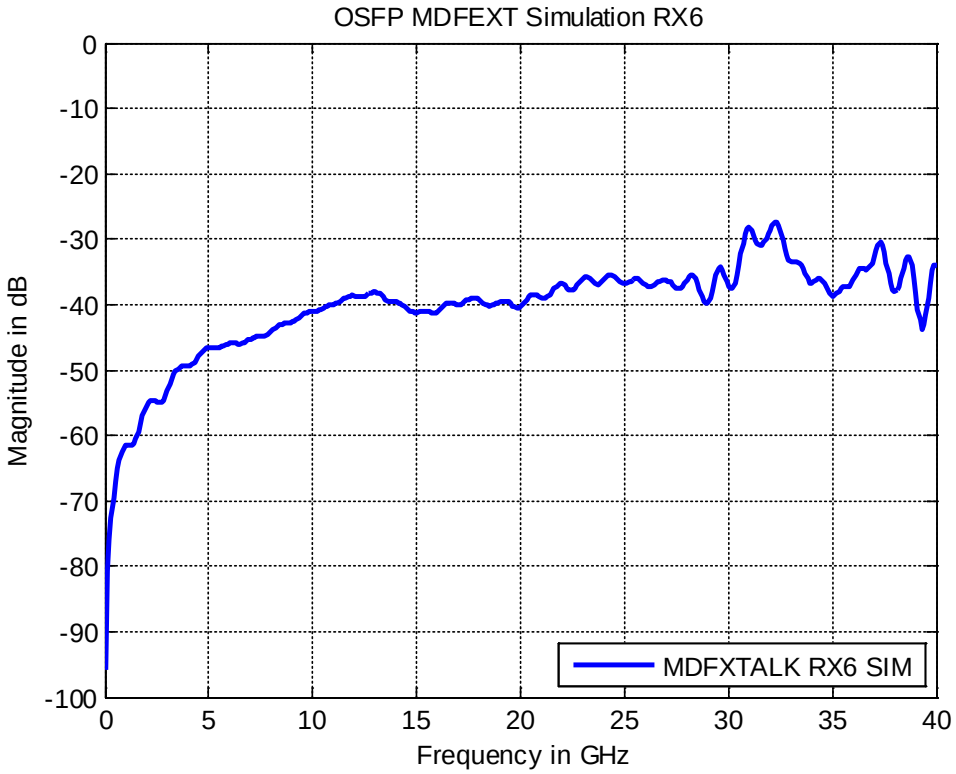
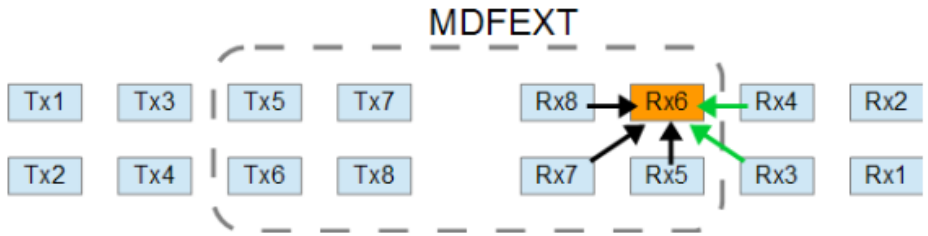
Best Case
No fixture-induced XTALK







ICNf = 3.4800mV

Measured against IEEE802.3cd

802.3cd ICNf simulations RX5

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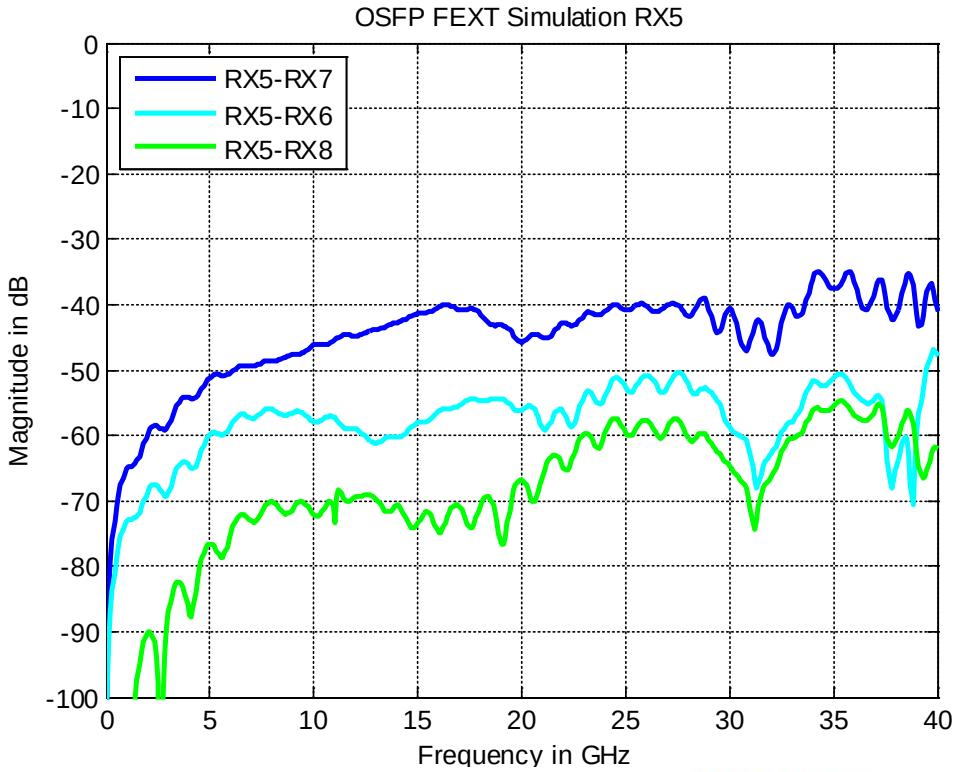
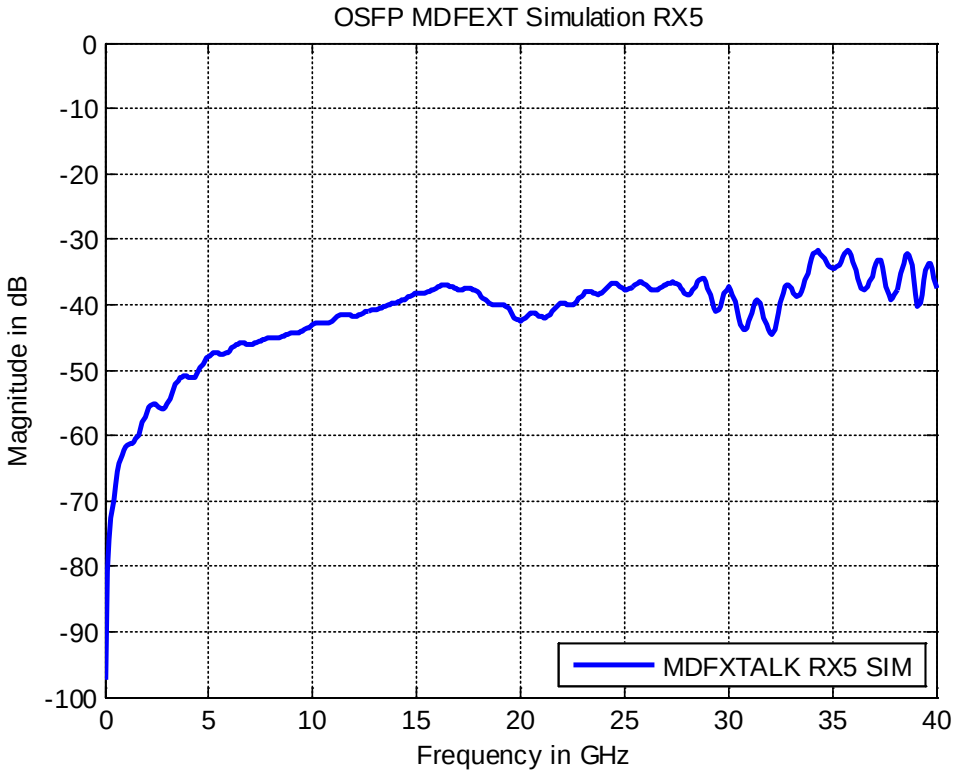
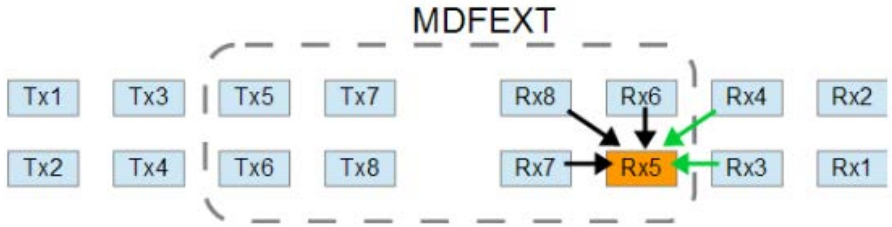
Best Case
No fixture-induced XTALK







ICNf = 3.1230mV

Measured against IEEE802.3cd