

Title: Description of Test Fixture Data using Second Generation OSFP 1.6T MDI

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The dataset in mammenga_3dj_01_2509.zip consists of S-parameters for the Wilder-Tech HCB mated to the Wilder-Tech MCB as well as the HCB only and MCB only in touchstone format. The RF connectors used on the HCB and MCB are 1.85 mm. A second generation OSFP 1.6T connector was used in the mated measurements.

The HCB mated to MCB S-parameter files, also known as the mated test fixture, are 4-port measurements using a 67 GHz VNA, with 1 kHz IF BW, and from 10 MHz to 67 GHz with 6700 points. The HCB side RF connectors were measured on ports 1 (P) and 2 (N) and the MCB side RF connectors were measured on ports 3 (P) and 4 (N). This is a full set of through measurements.

The HCB only S-parameter files were originally 2 port unmated measurements from the HCB side RF connectors using the same VNA setup as the mated S-parameters. However, post-processing was applied utilizing the PLTS AFR tool to create 4 port through S-parameters of the HCB with the spring contact pads included. Ports 1 (P) and 2 (N) are the RF connector side of the HCB and Ports 3 (P) and 4 (N) are the spring contact pad side of the HCB.

The MCB only S-parameter file was originally a 4-port measurement of a MCB 2x through coupon excluding the MCB via, OSFP connector, and pads. Again, the same VNA setup was used. Post-processing was applied utilizing the PLTS AFR tool to create a 1x through S-parameter file that represents the MCB. Ports 1 (P) and 2 (N) are the RF connector side of the MCB and Ports 3 (P) and 4 (N) are positioned right before the MCB Vias that lead into the OSFP connector pads.