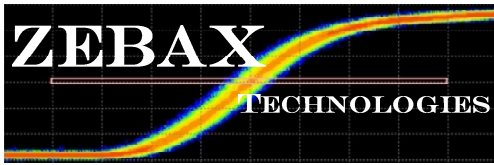


USB 2.0 USB 3.0 Test Board – Characterization report DC-7GHz

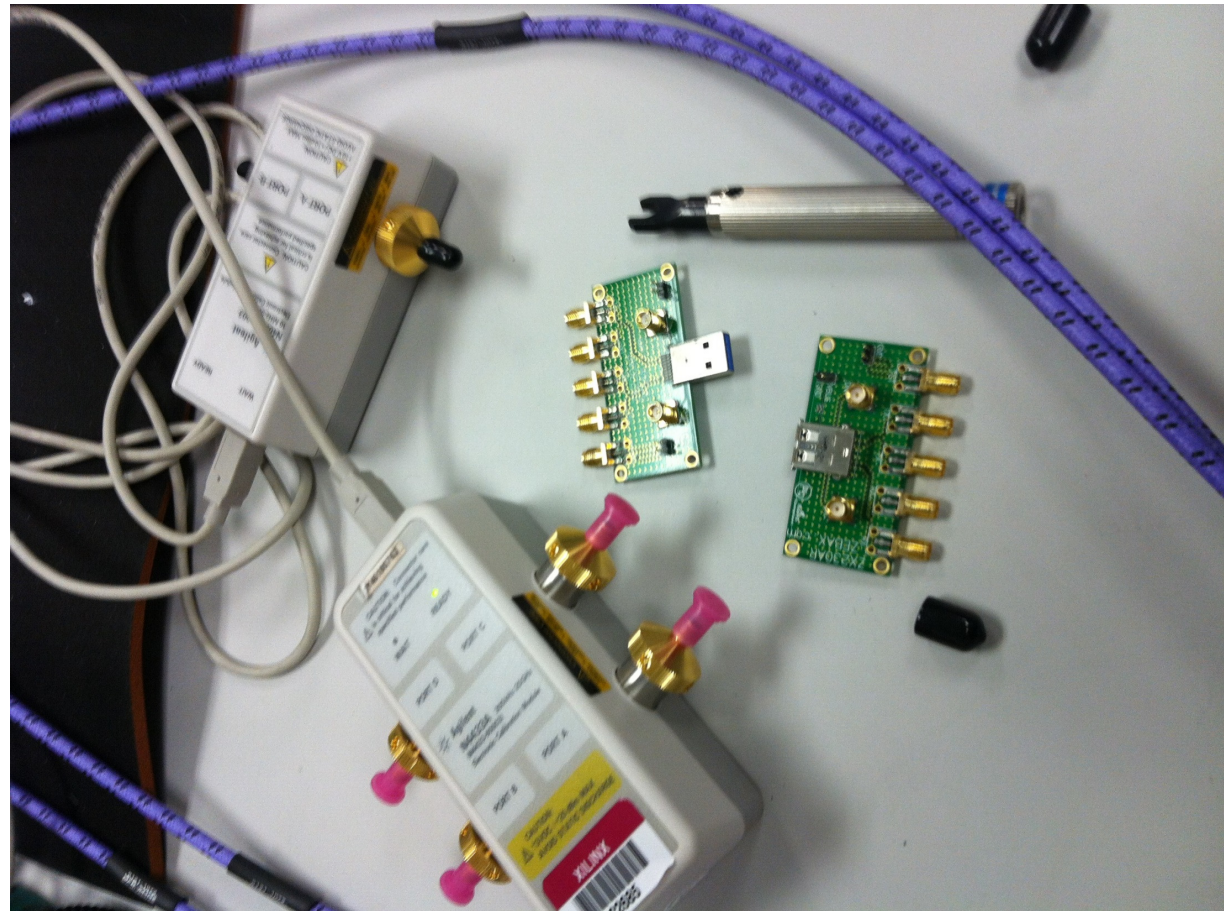
- Test case: ZX230AP and ZX230AR
- Test tool: Agilent network analyzer
- Measured Differential Insertion Loss using ZX230 Rev 0 - test board results in :

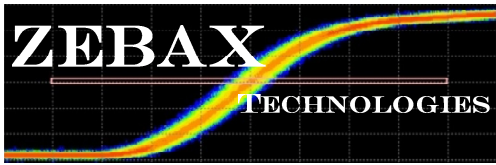
TX+-	RX+-	DN+-
-24dB at 7GHz	-23dB at 7GHz	-1.5dB DC to 1GHz



USB 2.0 USB 3.0 Test Board – Characterization report DC-7GHz

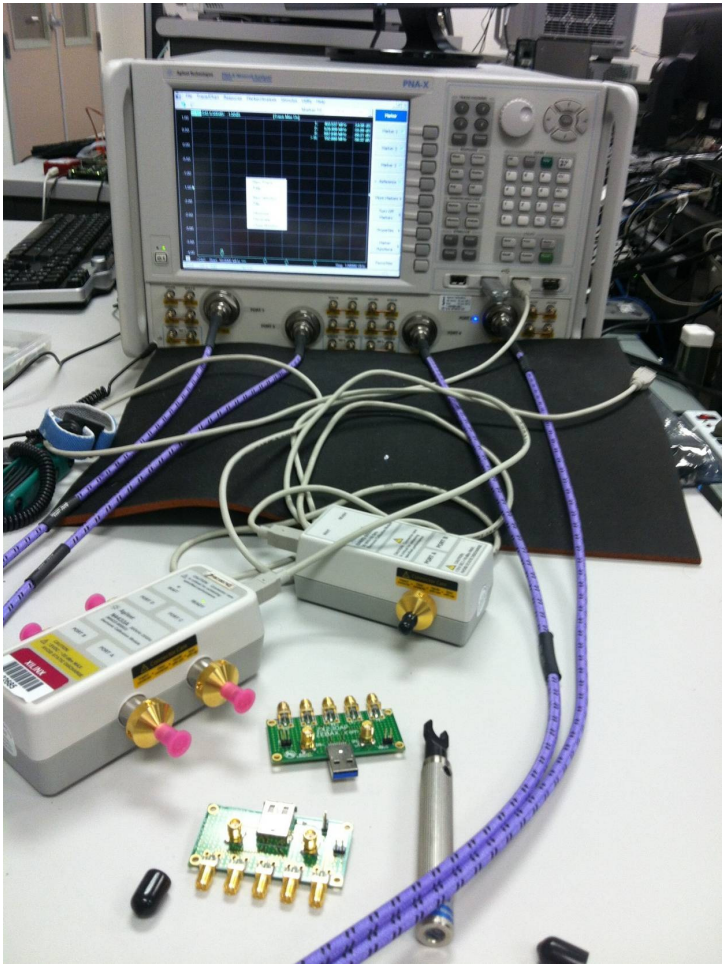
1. Test case using ZX230AP and ZX230AR



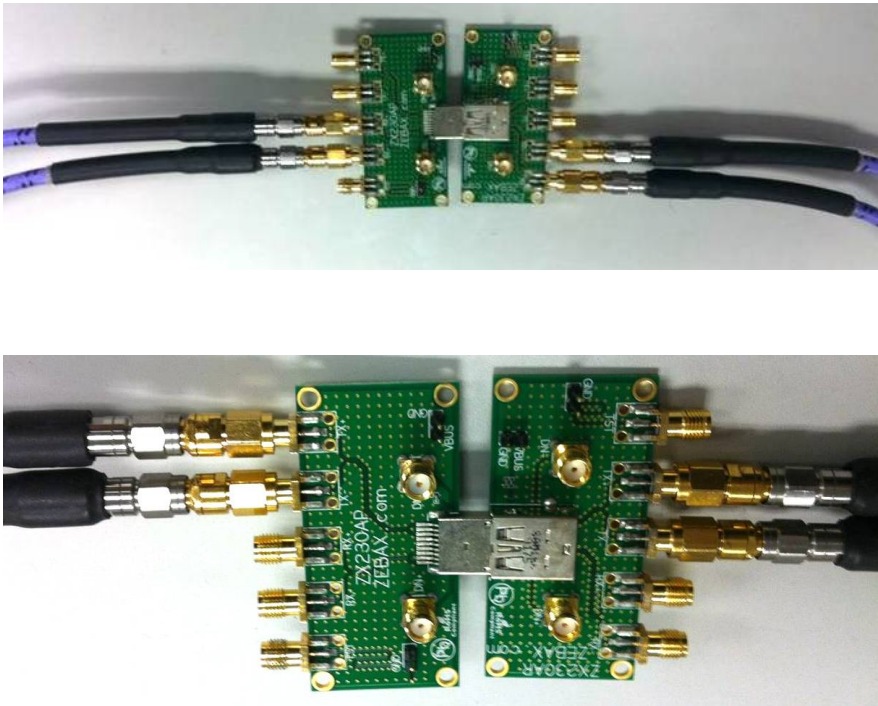


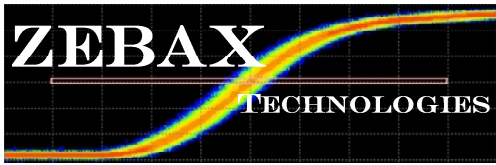
USB 2.0 USB 3.0 Test Board – Characterization report DC-7GHz

- Test setup configuration

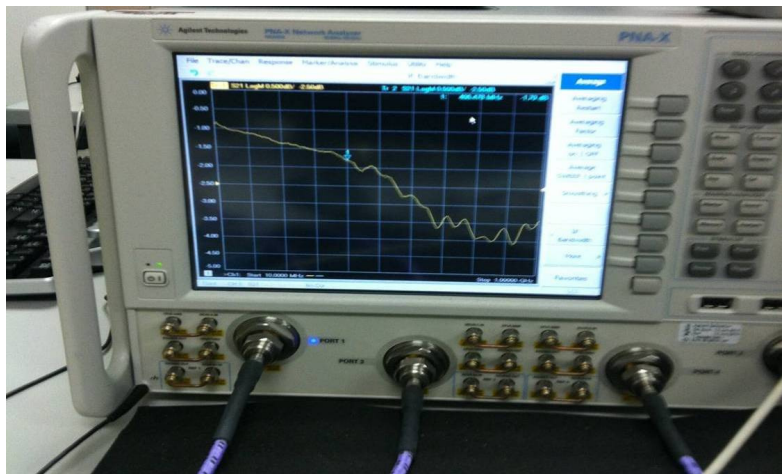
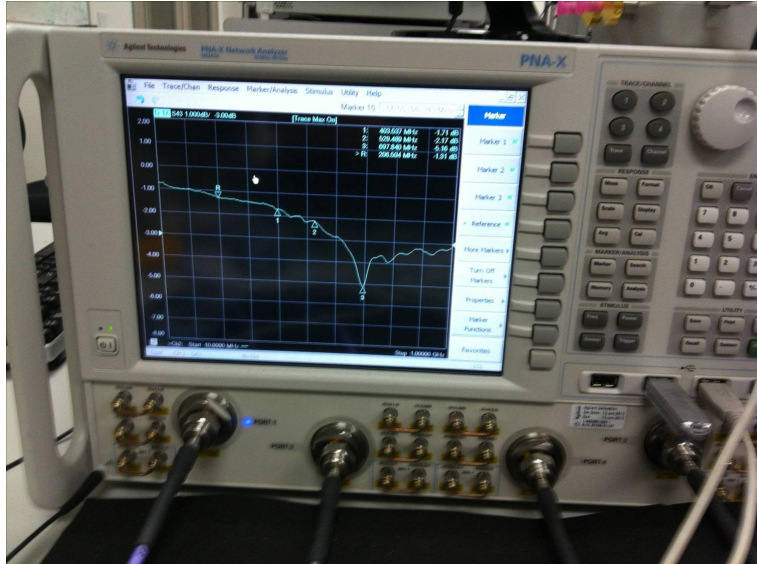
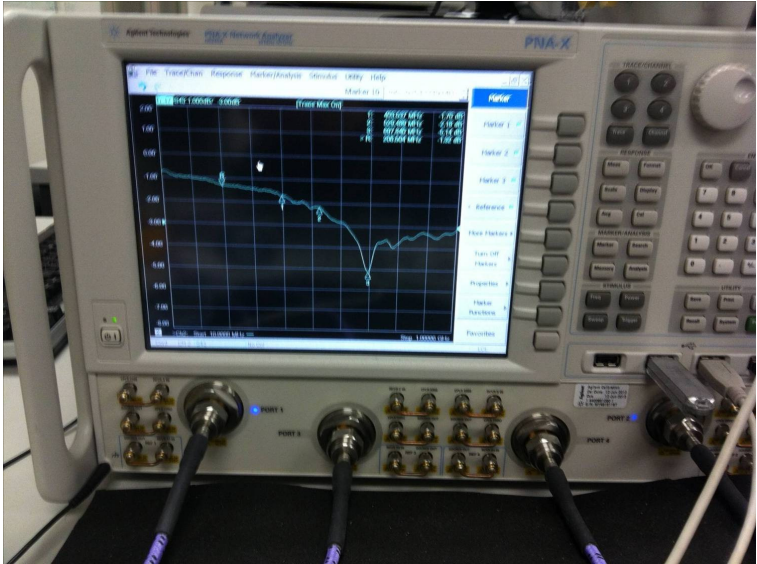


- Board to board connection interface setup



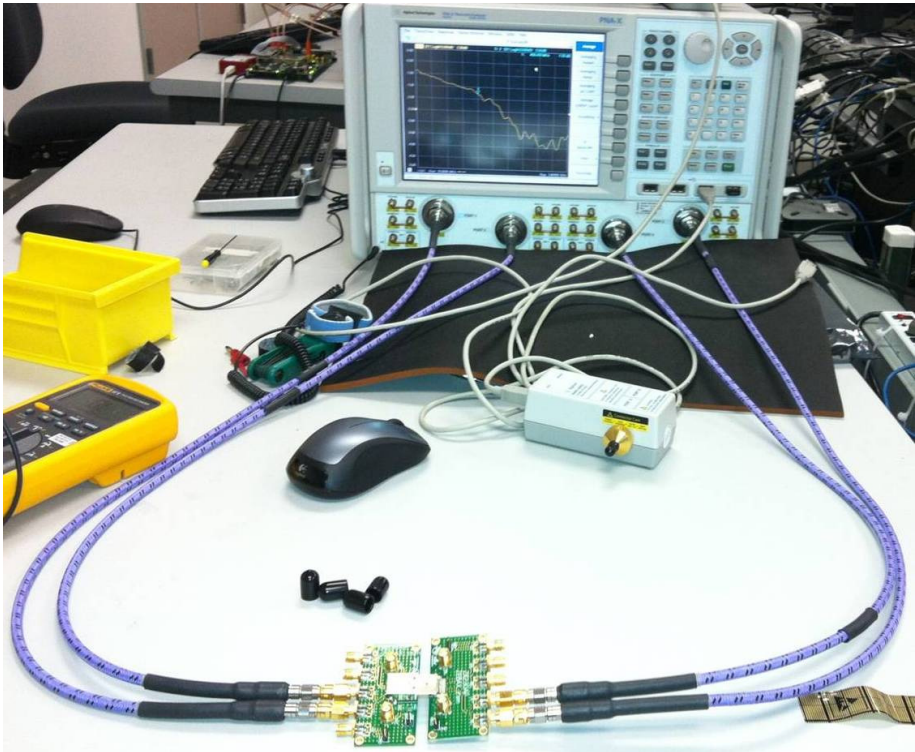


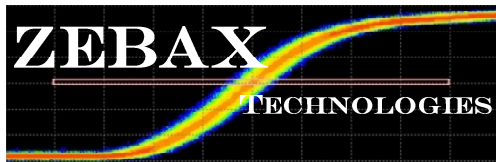
USB 2.0 USB 3.0 Test Board – Characterization report DC-7GHz



USB 2.0 USB 3.0 Test Board – Characterization report DC-7GHz

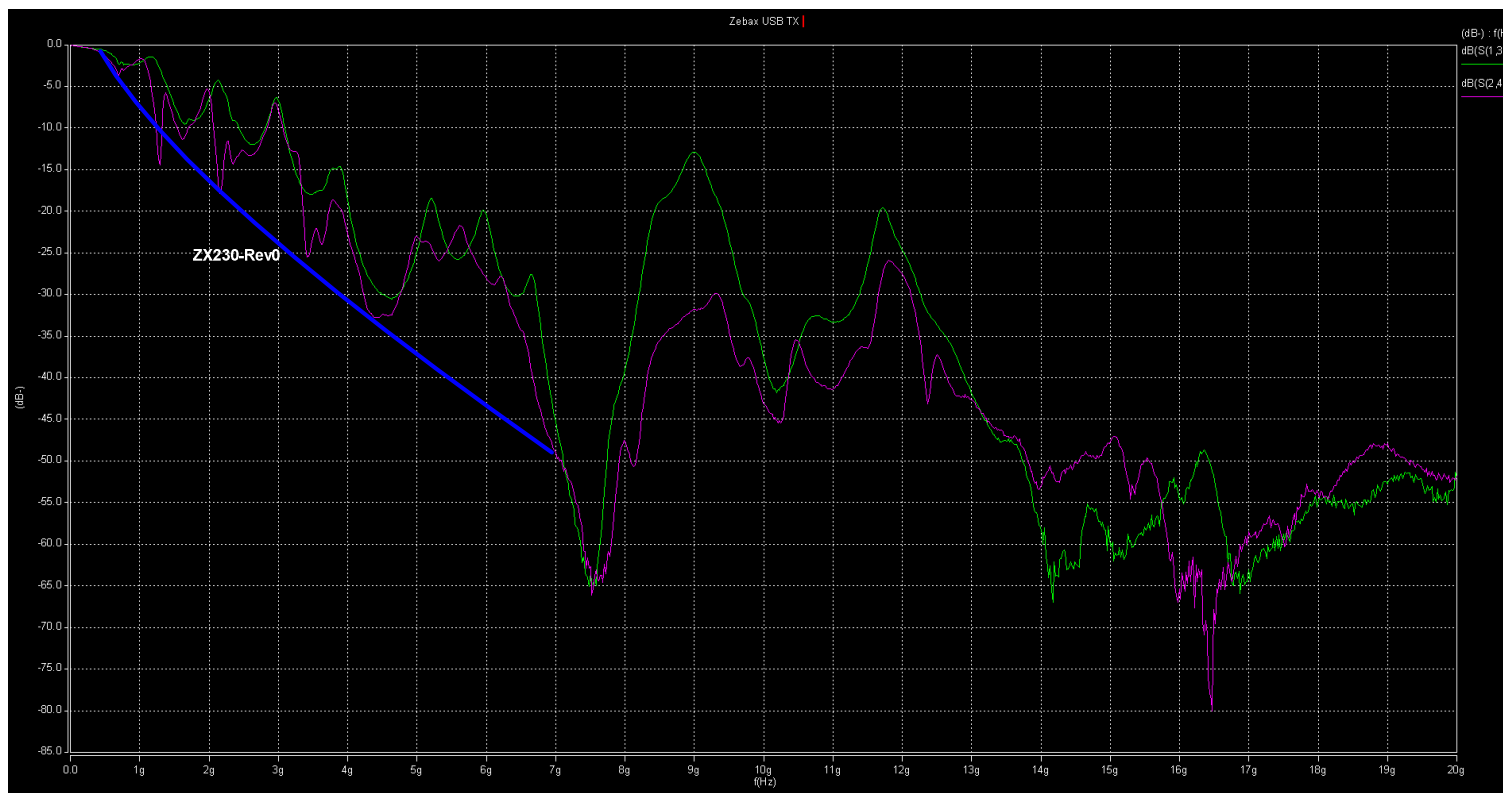
- System closed loop configuration

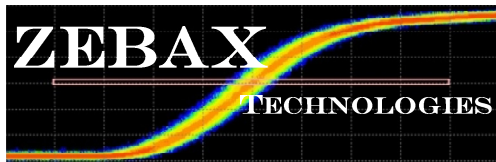




USB 2.0 USB 3.0 Test Board – Characterization report DC-7GHz

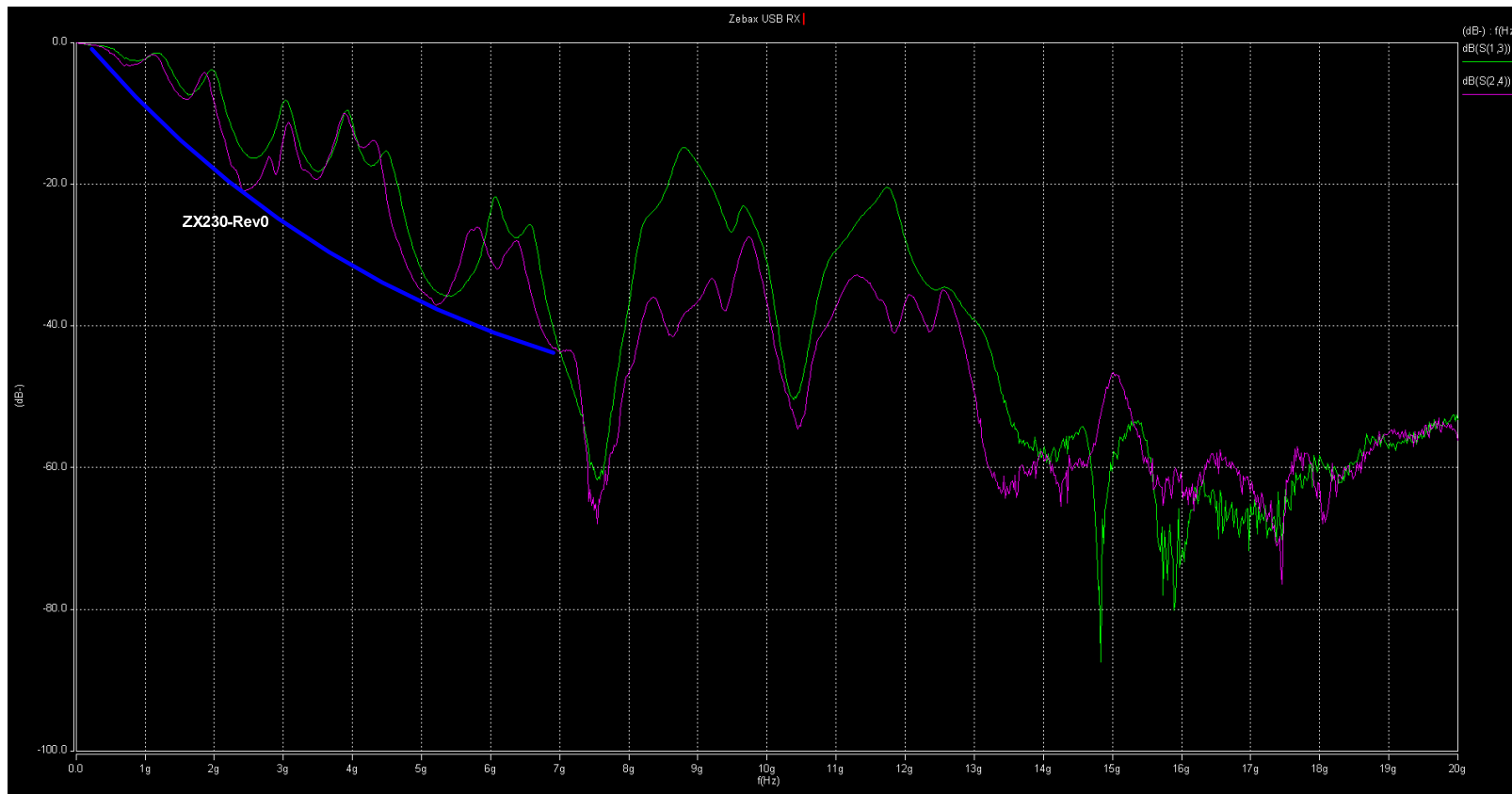
- SDD12 TX Insertion loss : DC .. 20GHz Worst test case average in **Blue line**

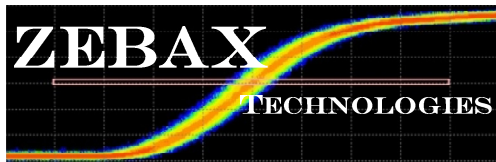




USB 2.0 USB 3.0 Test Board – Characterization report DC-7GHz

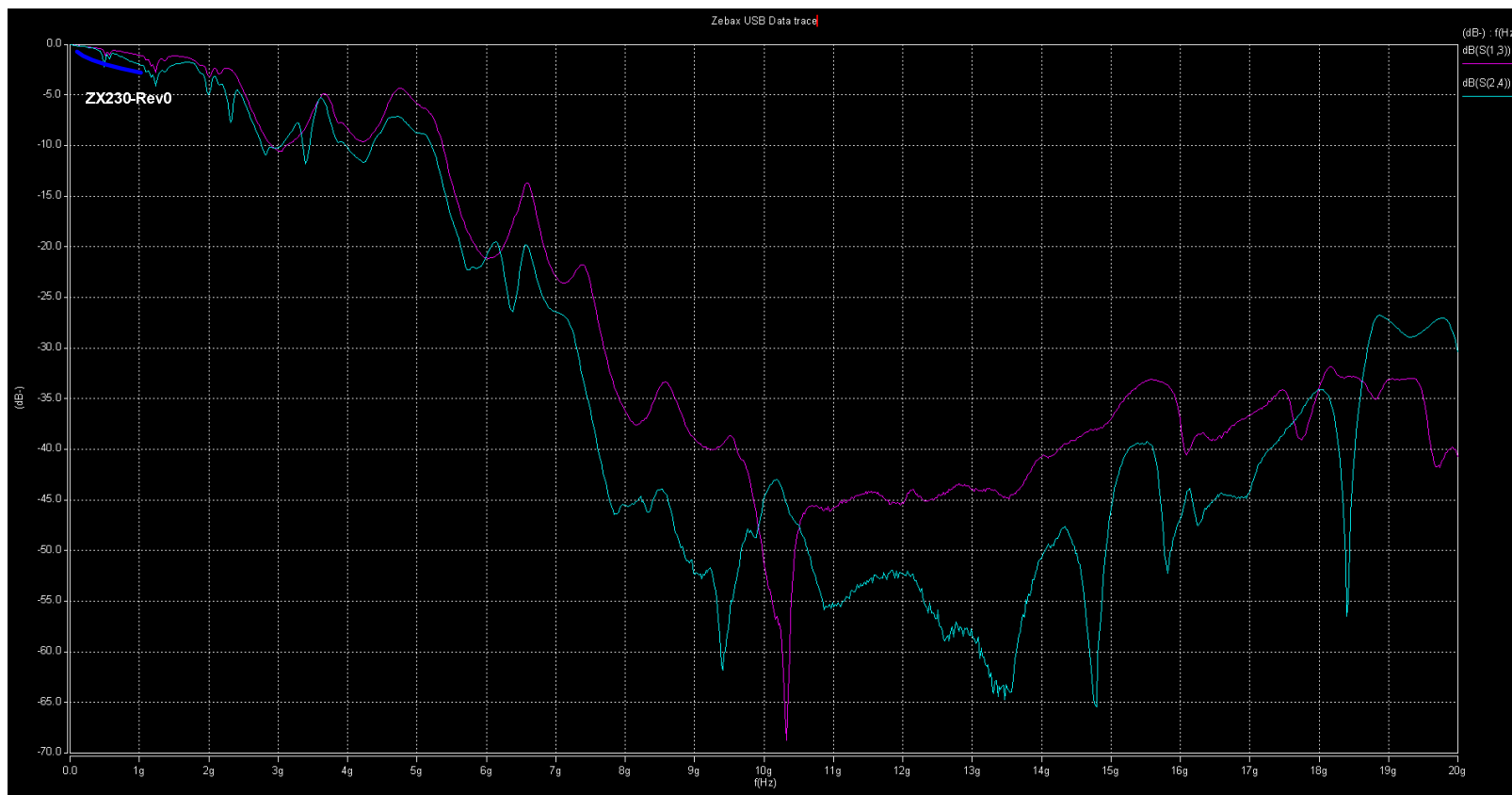
- SDD12 RX Insertion loss : DC .. 20GHz Worst test case average in **Blue line**

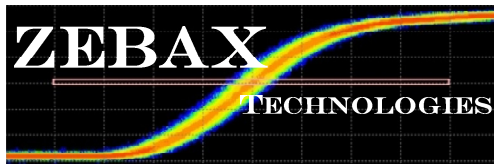




USB 2.0 USB 3.0 Test Board – Characterization report DC-7GHz

- SDD12 DATA Insertion loss : DC .. 1GHz Worst test case average in **Blue line**





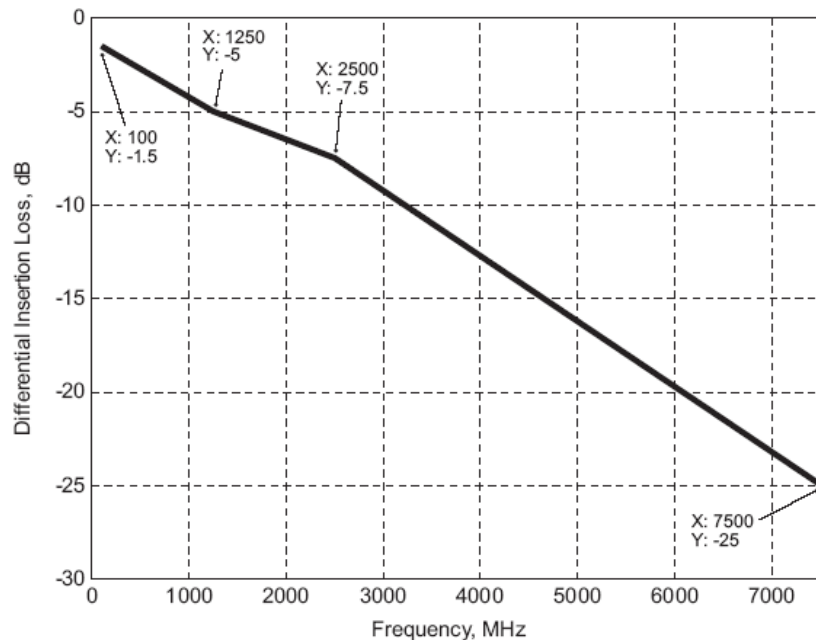
USB 2.0 USB 3.0 Test Board – Characterization report DC-7GHz

- Differential Insertion Loss (EIA-360-101)

The differential insertion loss, SDD12, measures the differential signal energy transmitted through the mated cable assembly.

- Chart below is the USB Differential Insertion loss Requirement.

Conclusion: The ZX230 exceeds all three signal traces at TX+-, RX+- and DN+- signal characterization measurements.



ZX230 Rev 0 - Insertion Loss

Signal Trace	Insertion Loss
TX+-	-24dB at 7GHz
RX+-	-23dB at 7GHz
DN+-	-1.5dB DC to 1GHz

