

IEEE 802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet TF

08 DEC 2020 Ad Hoc teleconference

Cable Measurements

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7 meter Sample Test Setup

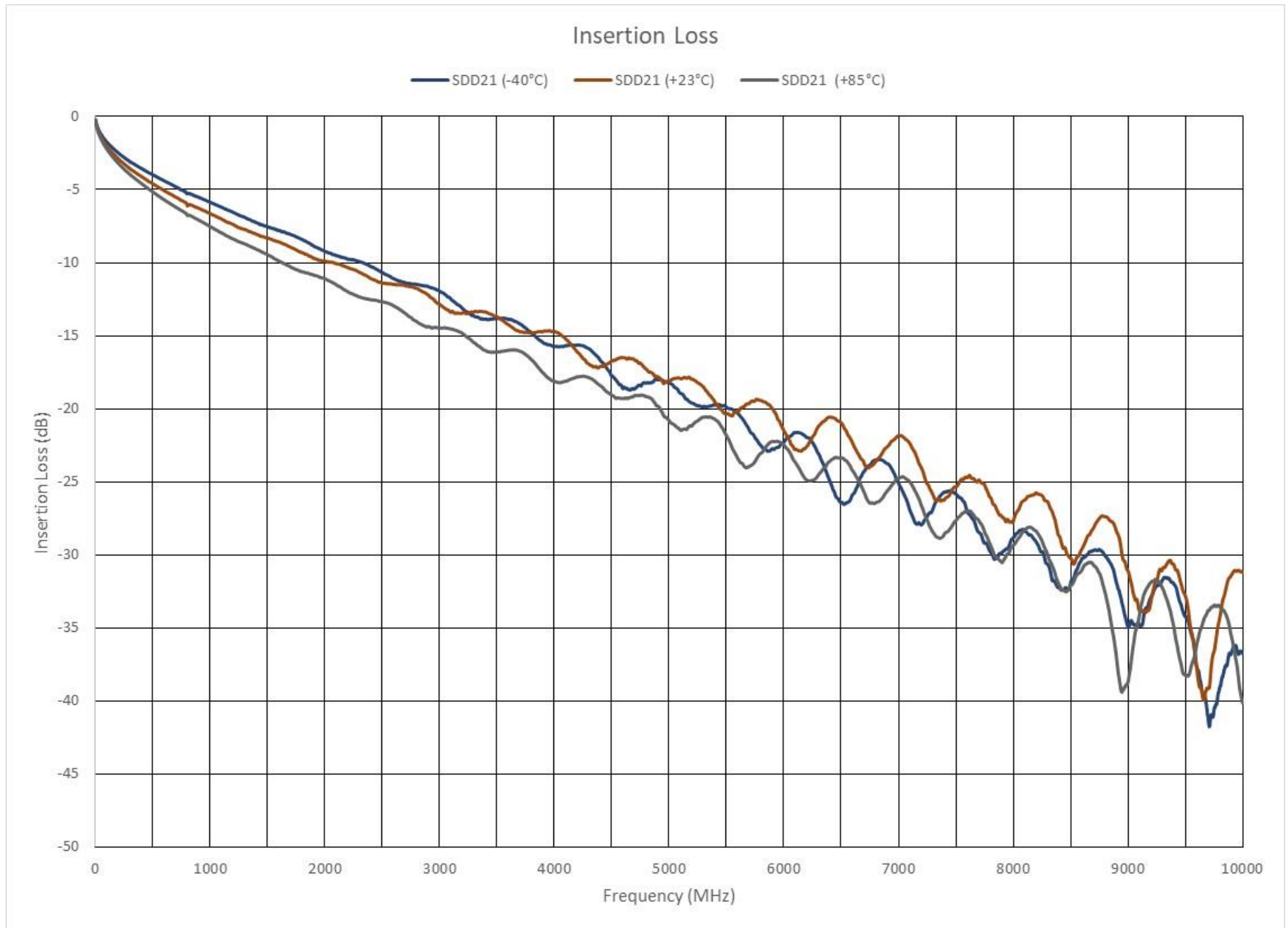


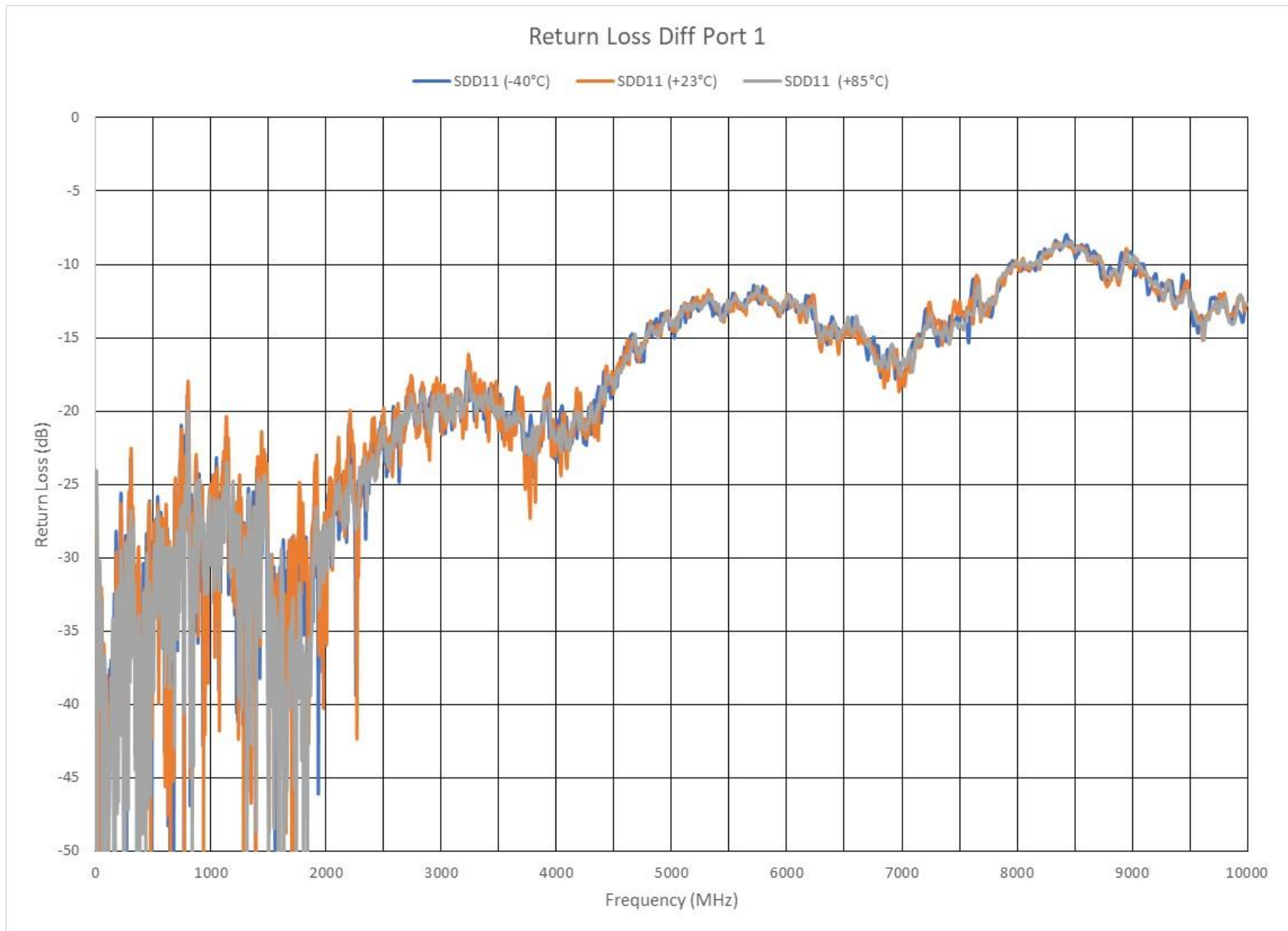
Cable Tested

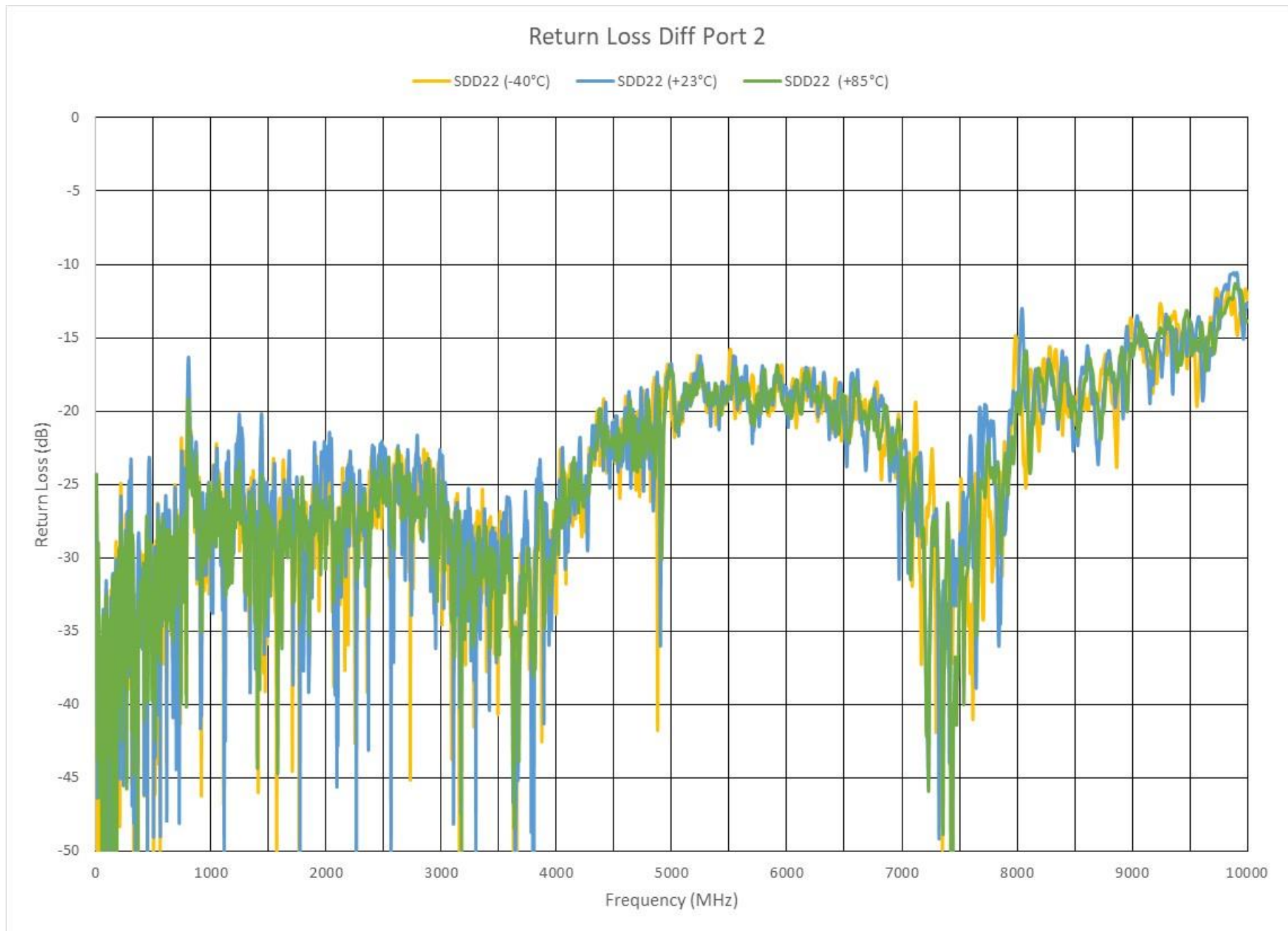
- Specialty cable developed for specific automotive S data use
- Shielded Twisted Pair (STP)
- 0.08 mm² (28 Ga.)
- Temperature rating: +85 °C
- Shielding; >85% braid and aluminum foil
- Characteristic impedance: $(100 \pm 5) \Omega$
- Intra-pair skew < 10 ps/m (coupled measurement)
- Sample Length: 7 meters

Equipment Setup

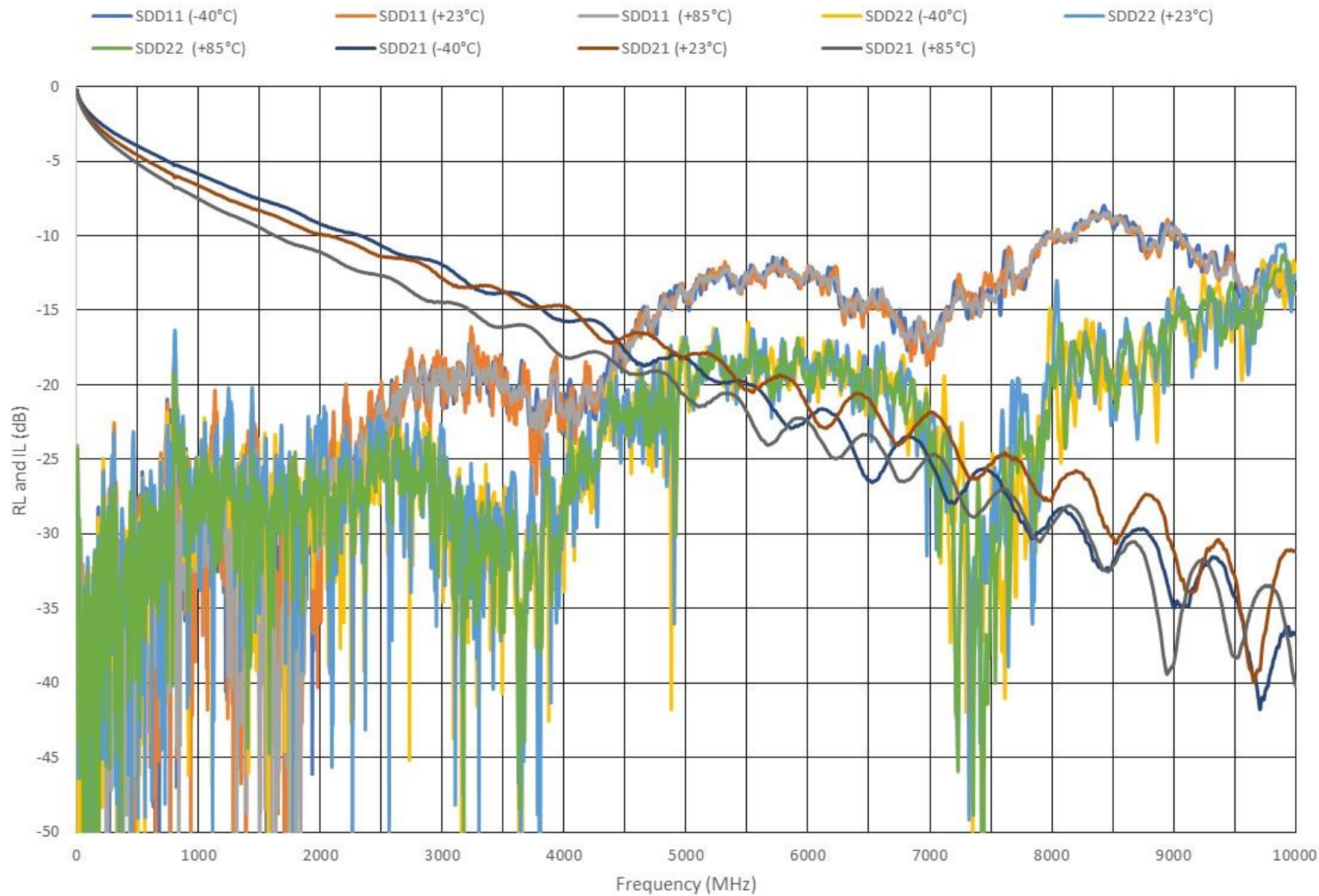
- Keysight ENA 5071C.
- Frequency; 1 MHz – 10 GHz; 10,000 points; 1 MHz linear spacing.
- 1 kHz IFBW
- Output power: -5 dBm
- Port assignment:
 - Diff 1 - Port 1/3
 - Diff 2 - Port 2/4
- Cable test fixture; SMA and 30 mm of topside PCB (2X Through 4-SMA 60 mm of topside PCB). All data is with cable test fixture de-embedded.
- Keysight PLTS 2020 with Automatic Fixture Removal (AFR) Option.
- Touchstone files of cables with de-embed of 2X through posted at 802.3cy site.



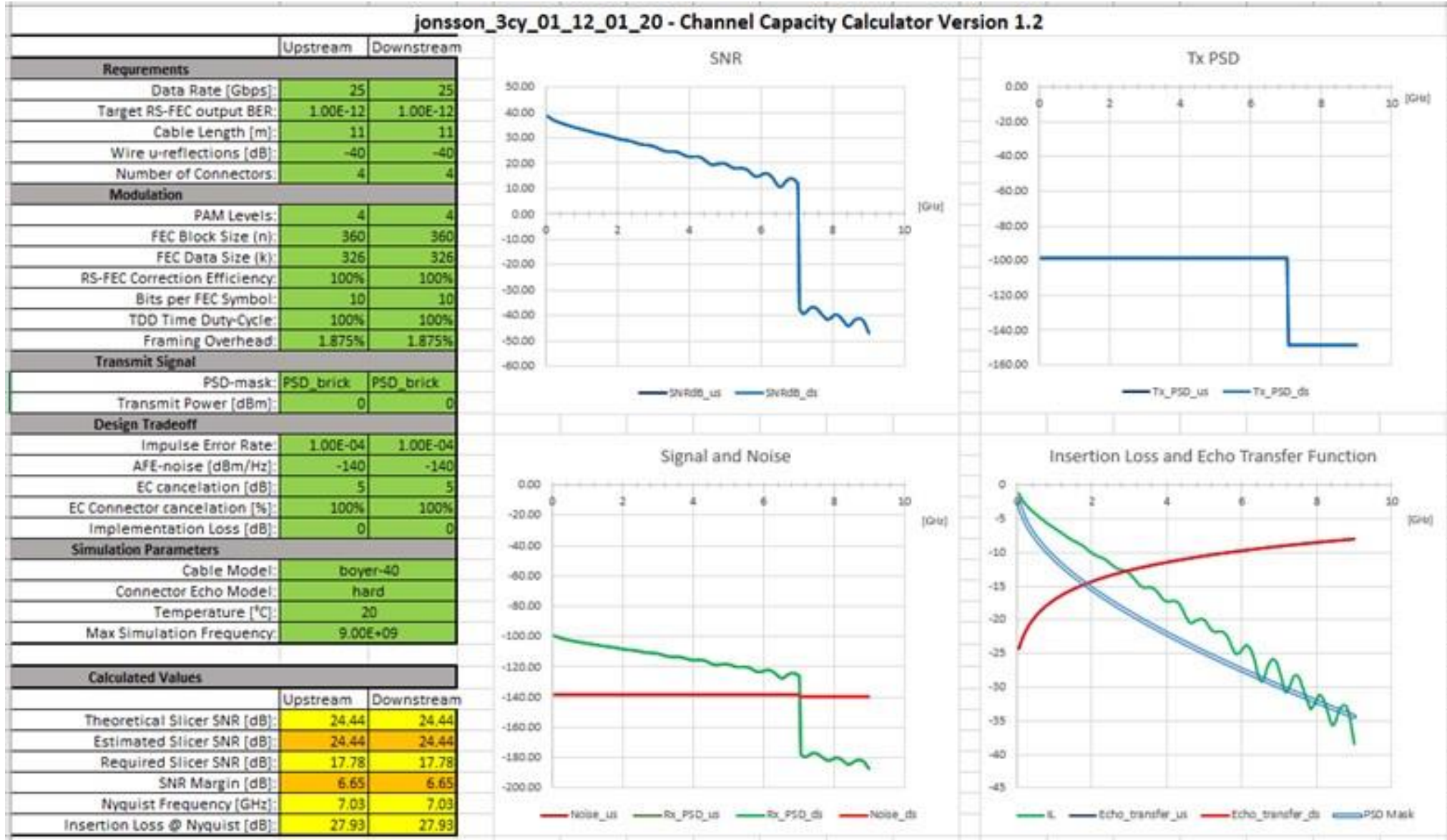




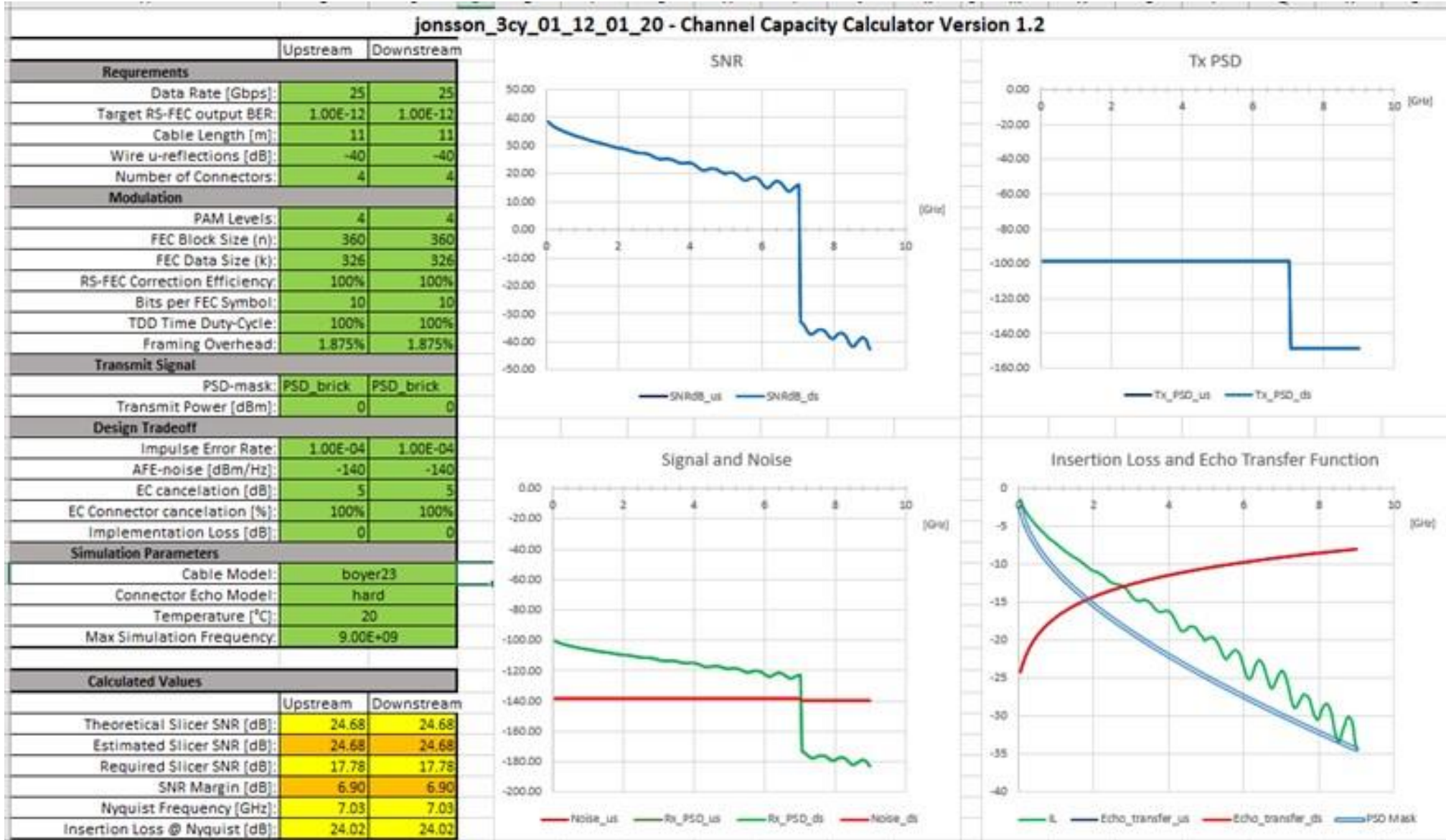
Return and Insertion Loss



-40 °C



+23 °C



+85 °C

