



Rosenberger

802.3ch channel measurement results

Thomas Müller

www.rosenberger.com

802.3ch channel measurement results

Topologies measured

- IEEE 802.3ch 15 m with 4 Inlines



- IEEE 802.3ch 10 m with 2 Inlines



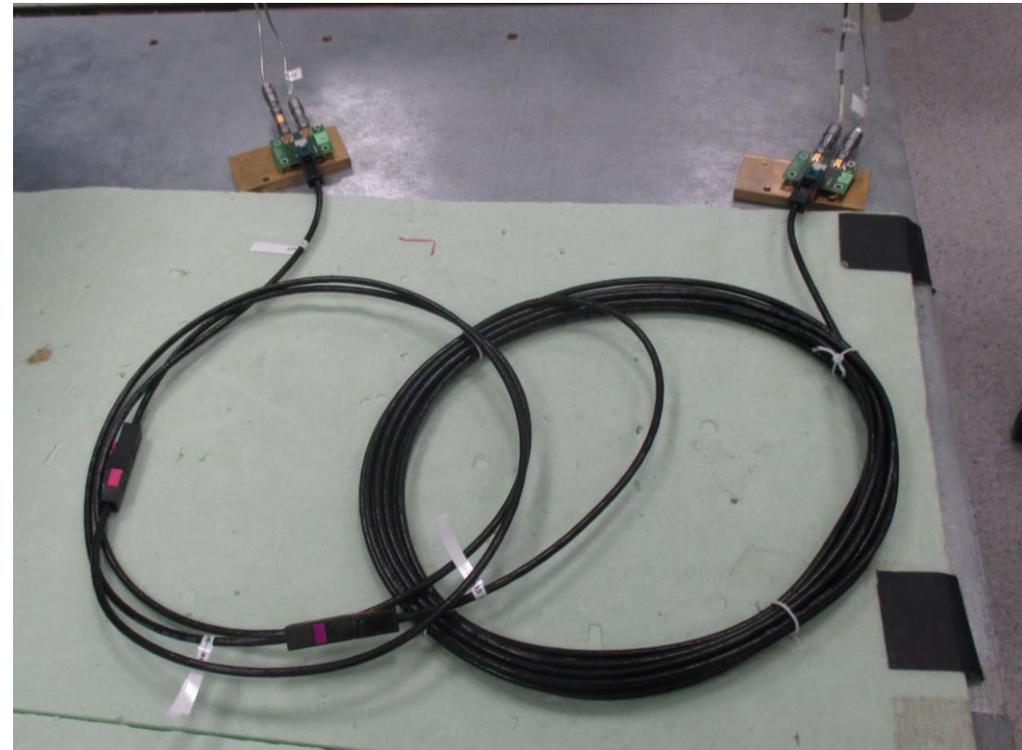
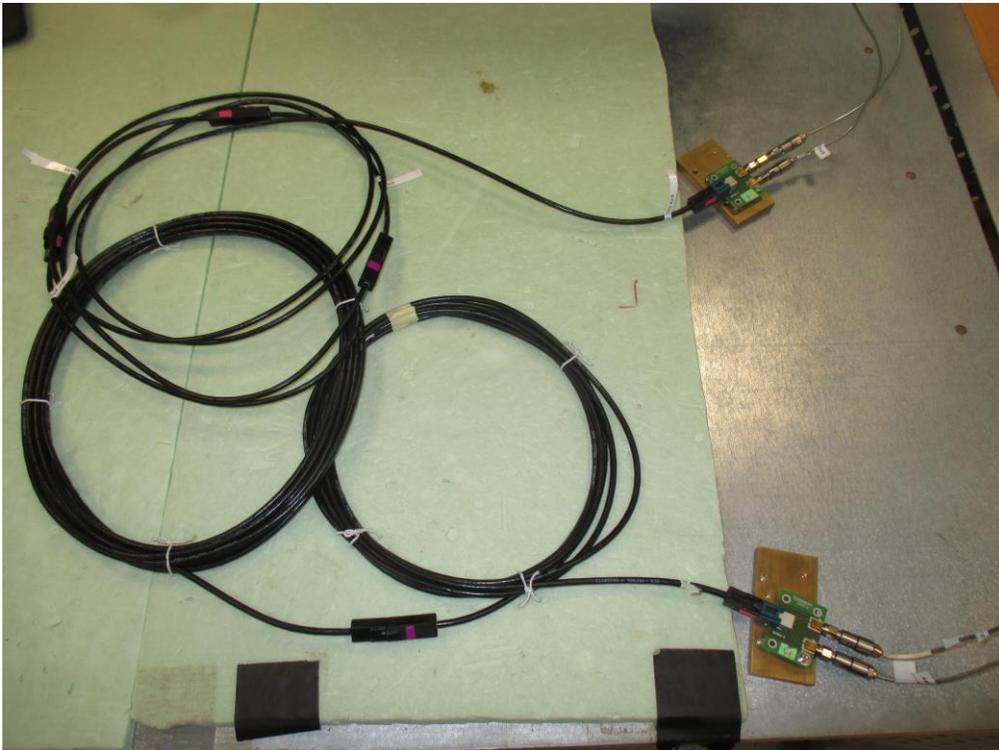
- IEEE 802.3bp 15 m with 4 Inlines



802.3ch channel measurement results

Measurement setup

- Shielded channels measured as coils over conducting ground plane
- All cables AWG26 gauge (2 x 0.14 qmm²)
- VNA parameters as agreed on before (up to 7.5 GHz)
- All samples at room temperature without aging

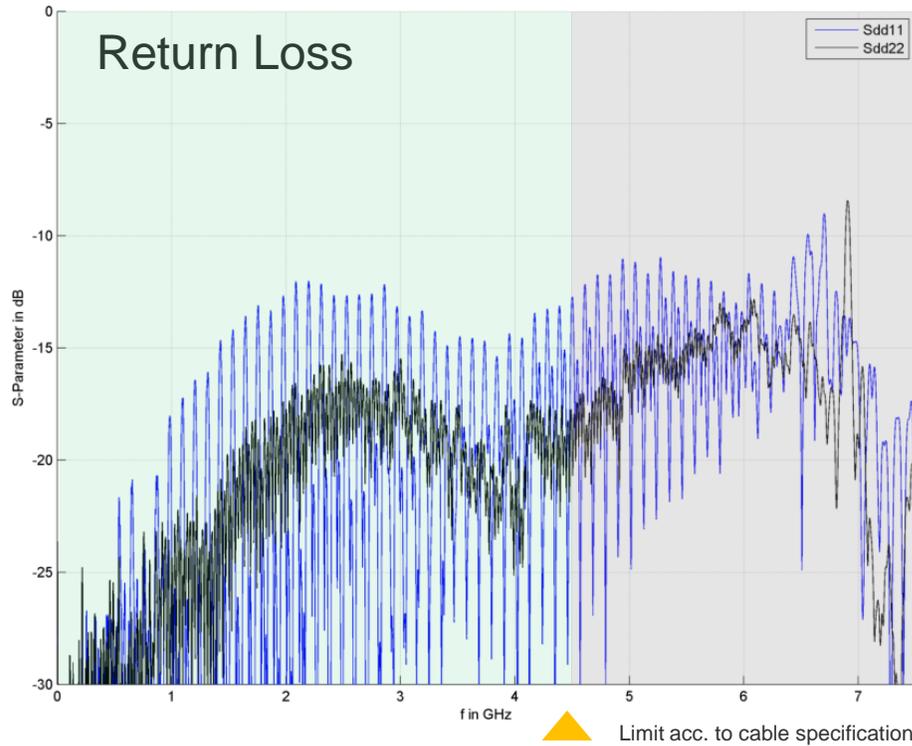


802.3ch channel measurement results

H-MTD STP 15 m with 4 inlines



H-MTD connector and STP cable



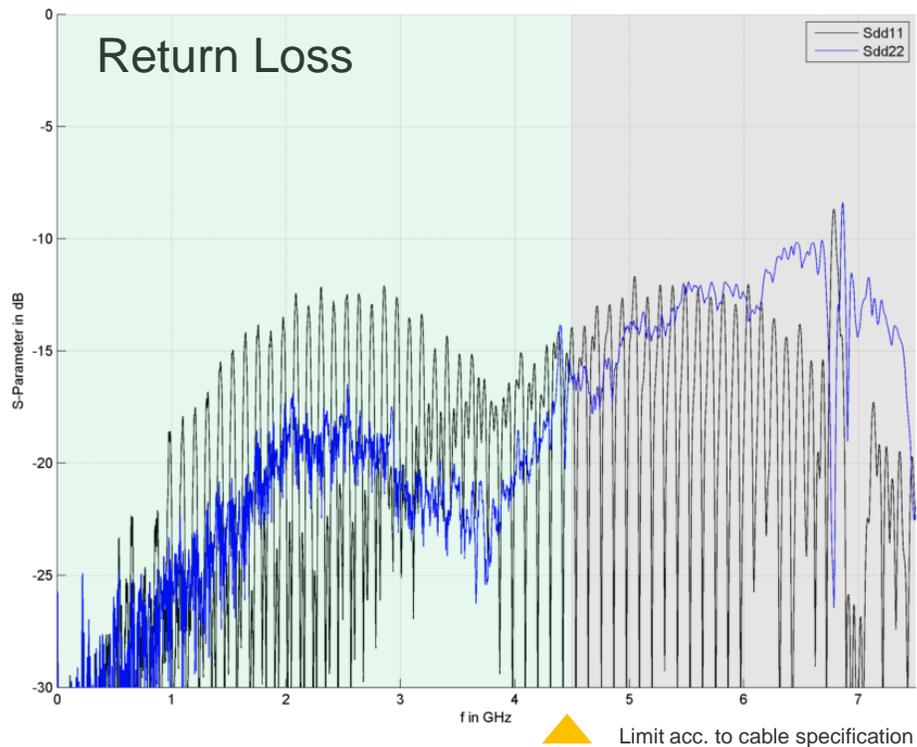
- With new generations of connectors, the usable frequency range can be expanded

802.3ch channel measurement results

H-MTD STP 10 m with 2 inlines



H-MTD connector and STP cable



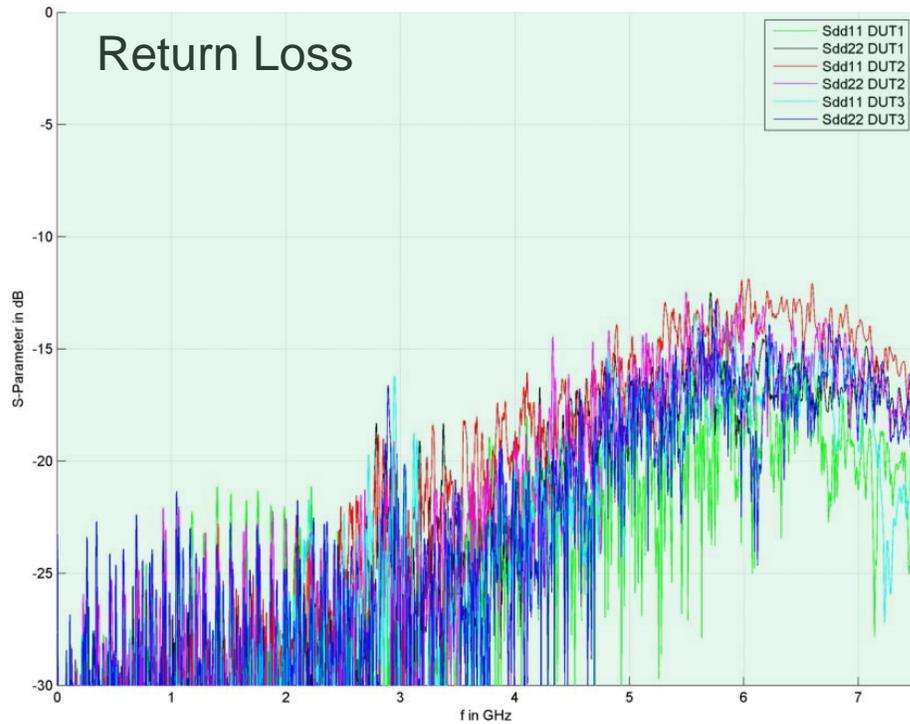
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H-MTD SPP 15 m with 4 inlines



H-MTD connector and SPP cable



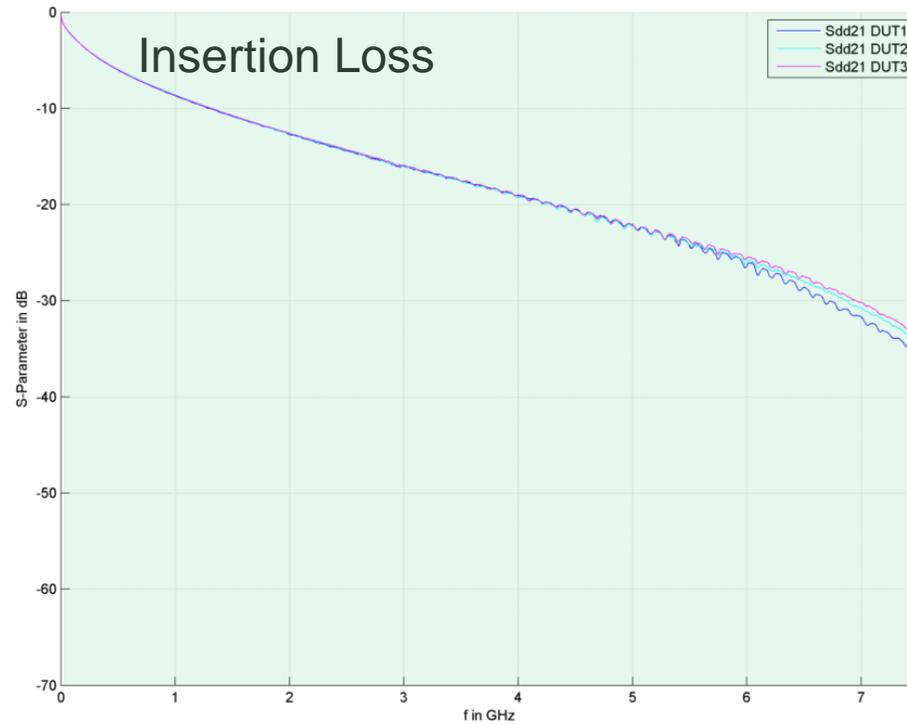
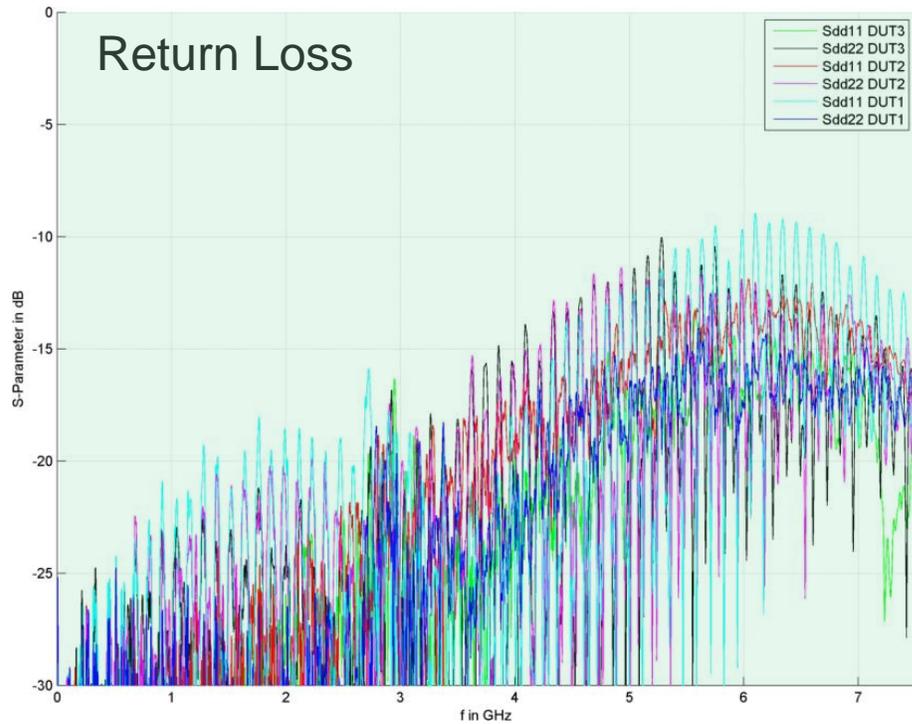
- Improved connectors with SPP cables provides a usable frequency range of at least 7.5 GHz

802.3ch channel measurement results

H-MTD SPP 10 m with 2 inlines



H-MTD connector and SPP cable



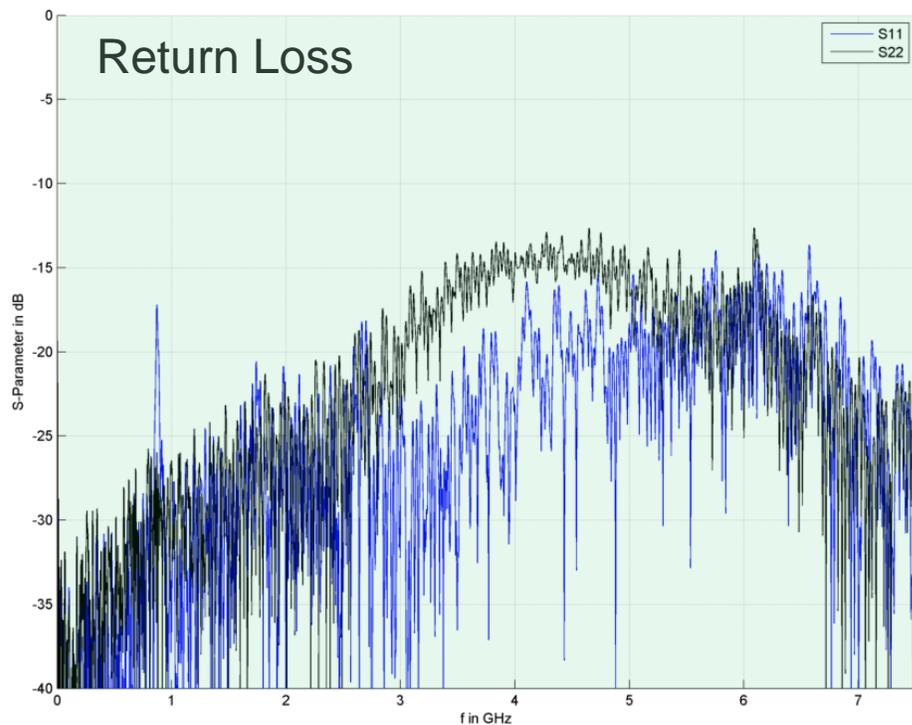
- Improved connectors with SPP cables provides a usable frequency range of at least 7.5 GHz

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Coaxial 15 m with 4 inlines



HFM connector and RG-174 cable



- New generation coax connectors provide a usable frequency range of at least 7.5 GHz

Summary

- Connectors and cables for the target frequency range of up to 7.5 GHz are available
- Baseline channel limits should be based on AGW26 gauge cables, taking into account the insertion loss constraints associated with small gauges