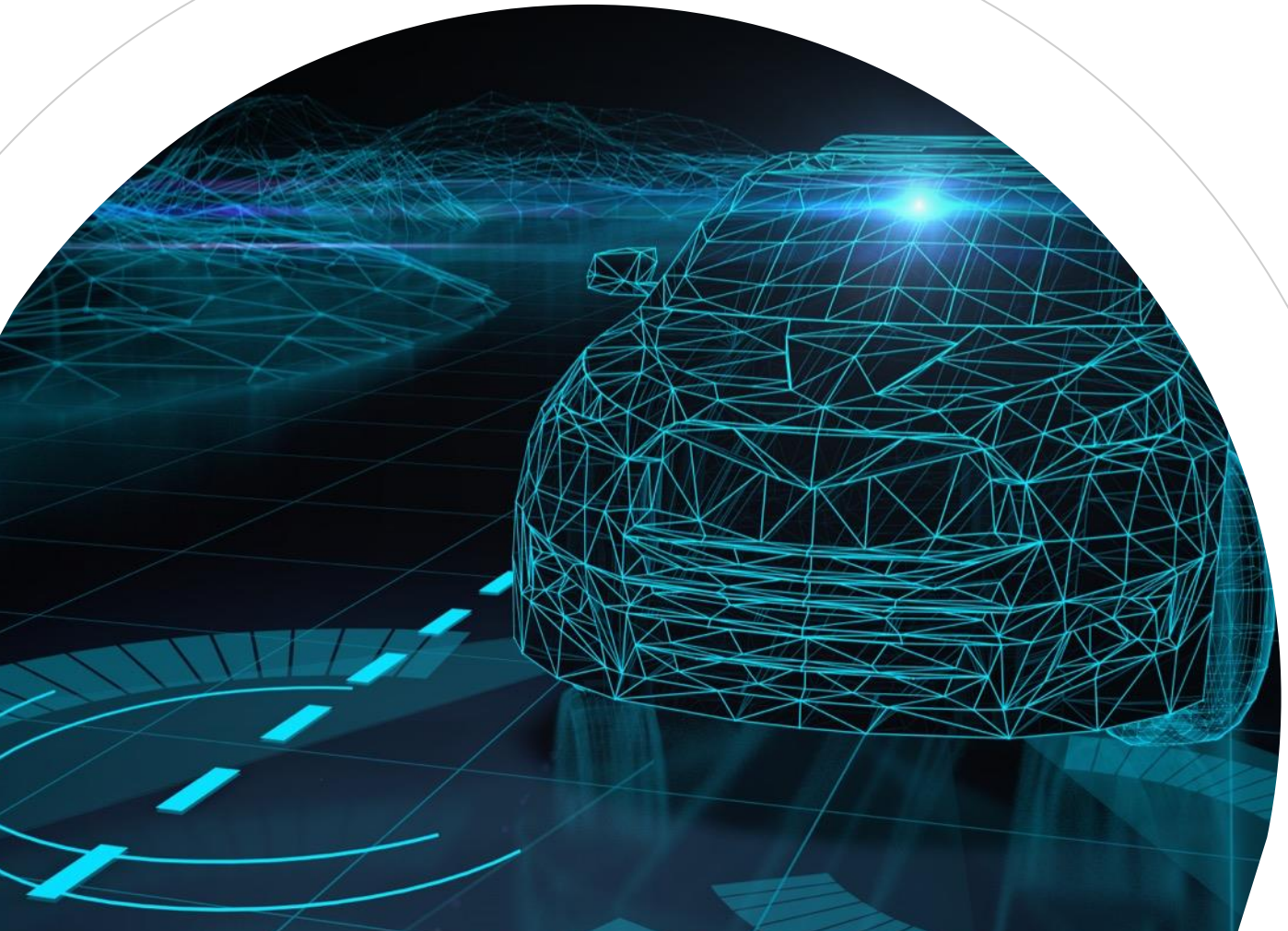
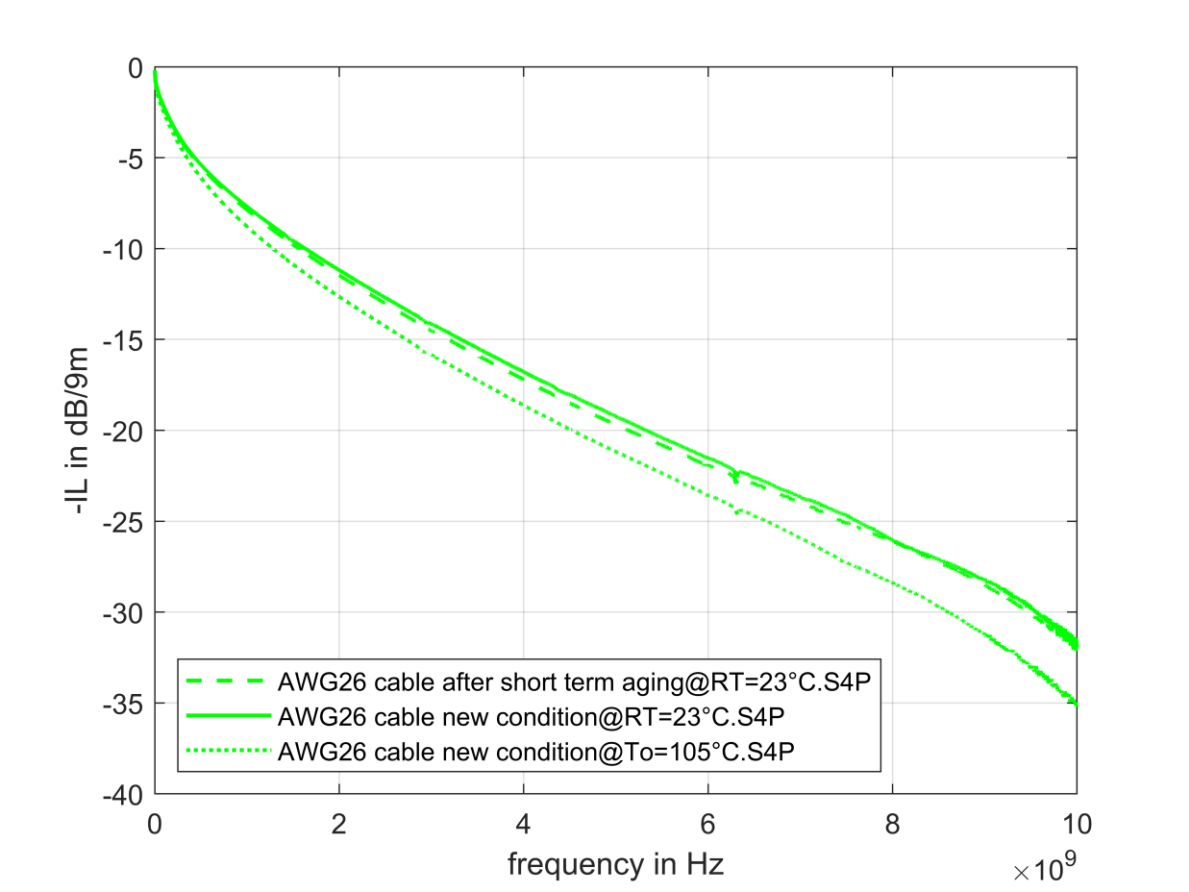
Simulation results for an AWG 24 SPP



Contribution to IEEE 802.3cy

Erwin Koeppendoerfer - LEONI

Aging behavior determined using the example of an AWG 26 SPP



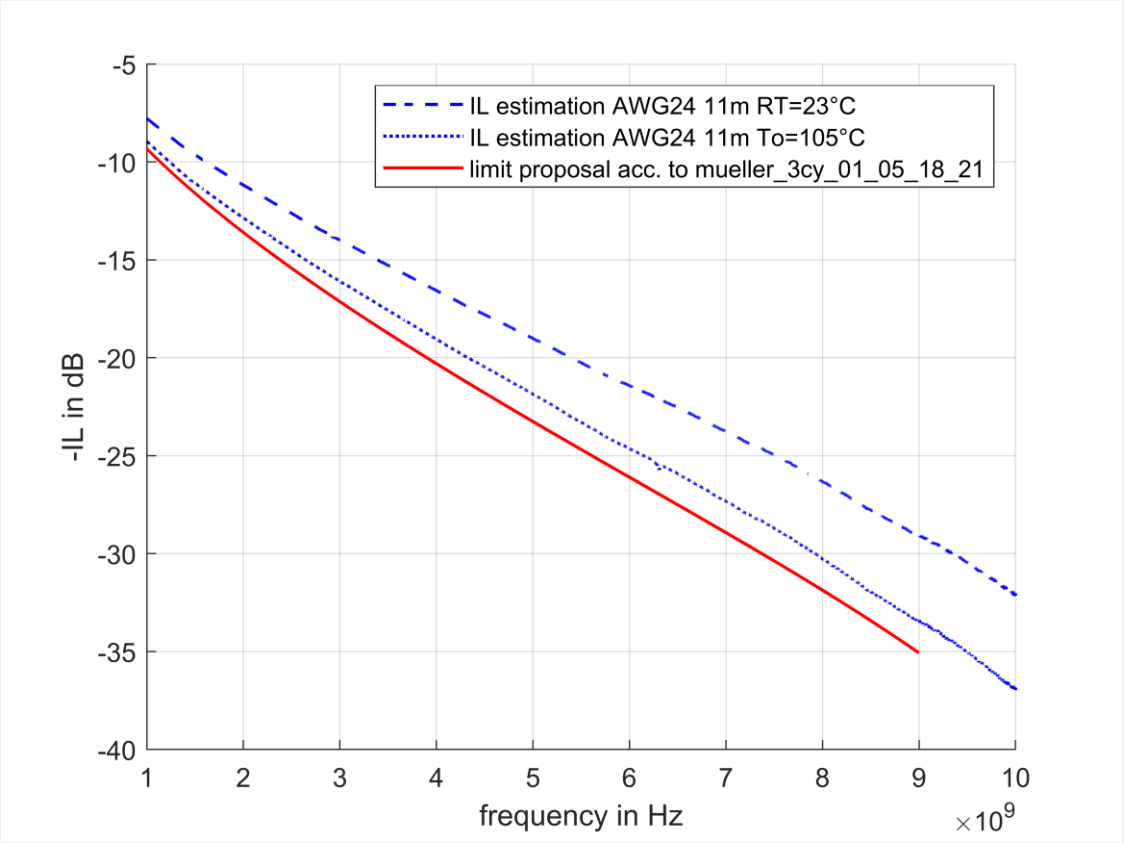
› Short term aging with 240h@130°C like our experience is short term aging more challenging then long term aging

→No relevant influence from aging

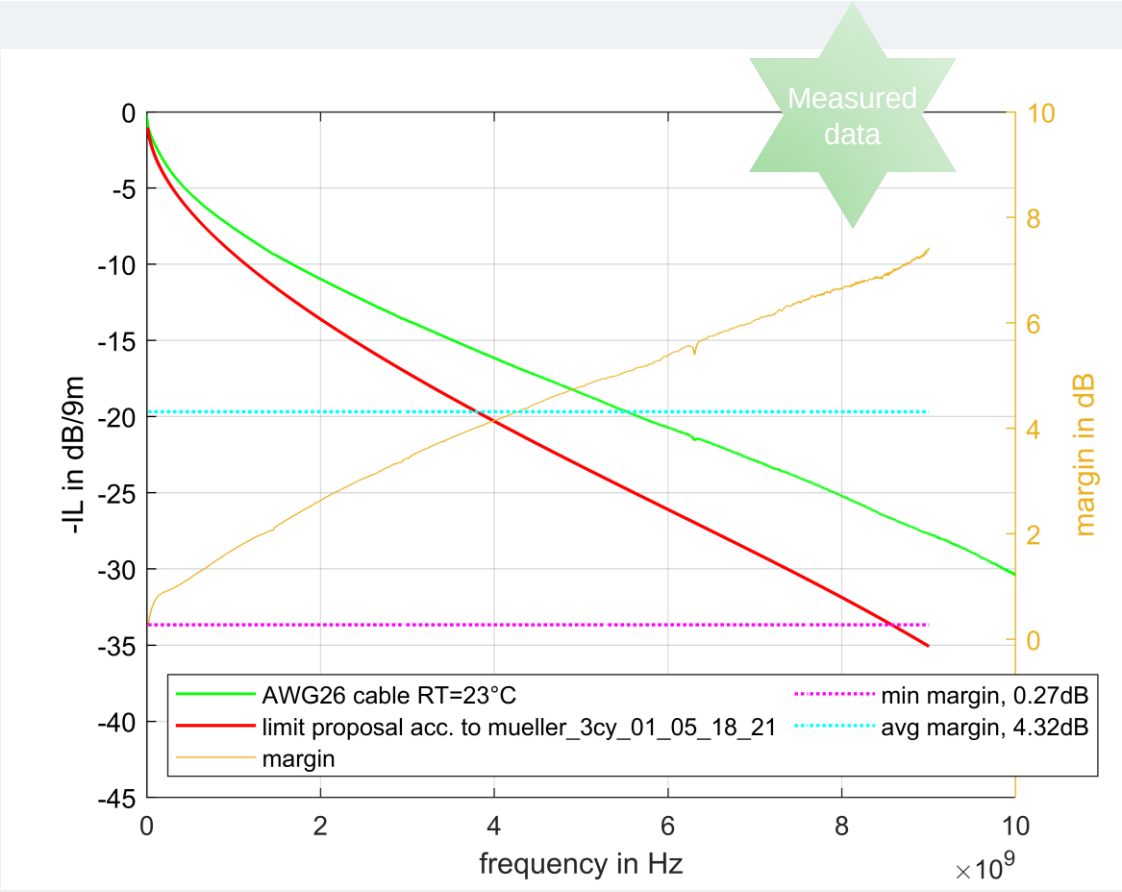
→ To is the worst case Szenario

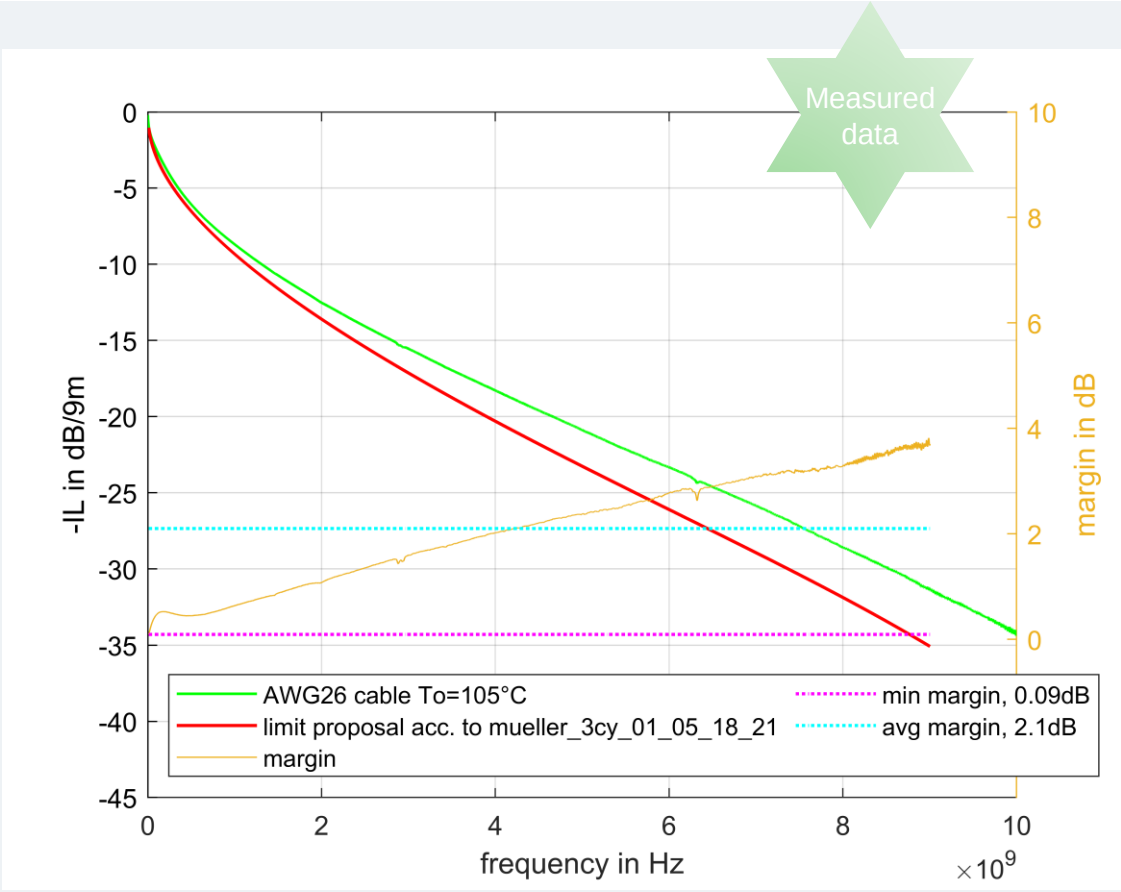
Simulation of 0,22mm²/ AWG 24 SPP

- Based on results of the AWG26 SPP cable the simulation model was trained with the relevant material parameters
- Based on the further results from the AWG26 SPP we estimate not a significant aging effect
- The simulation was done for 10m cable length and scaled up to 11m

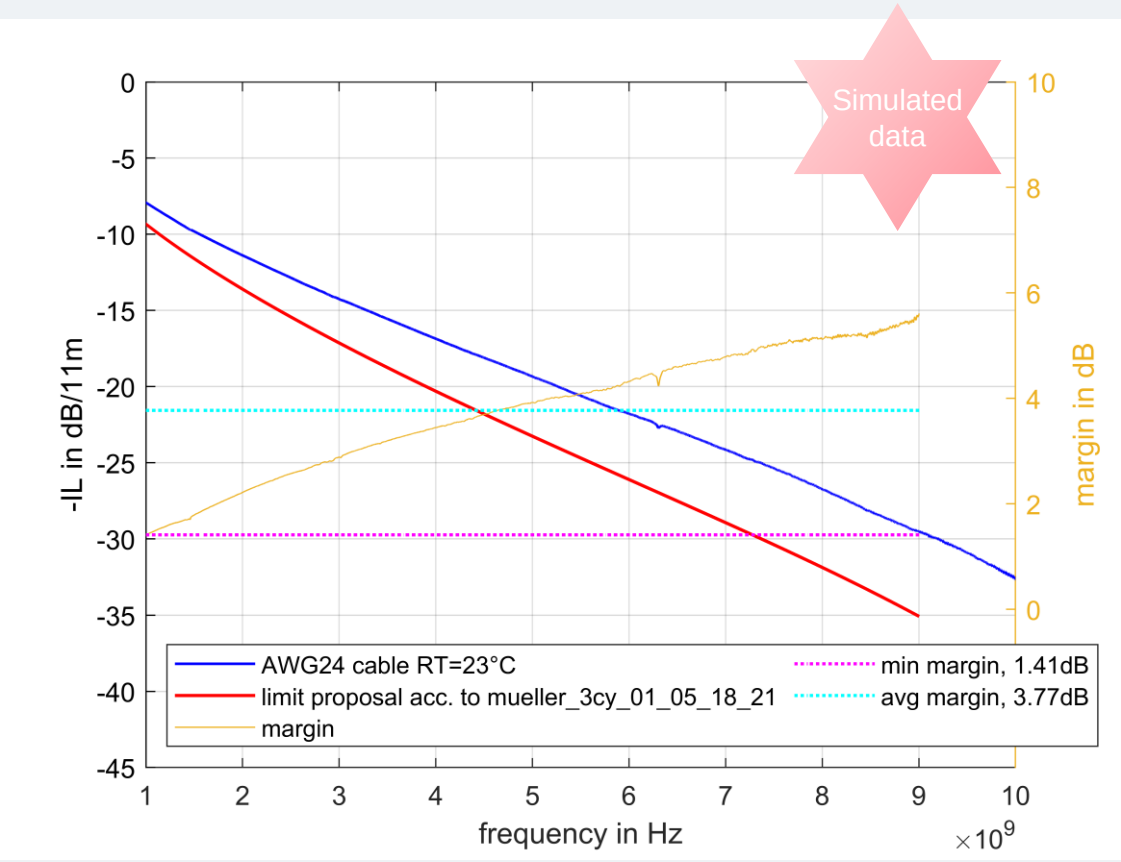


Margin estimation for 9m AWG26 SPP – based on measured data

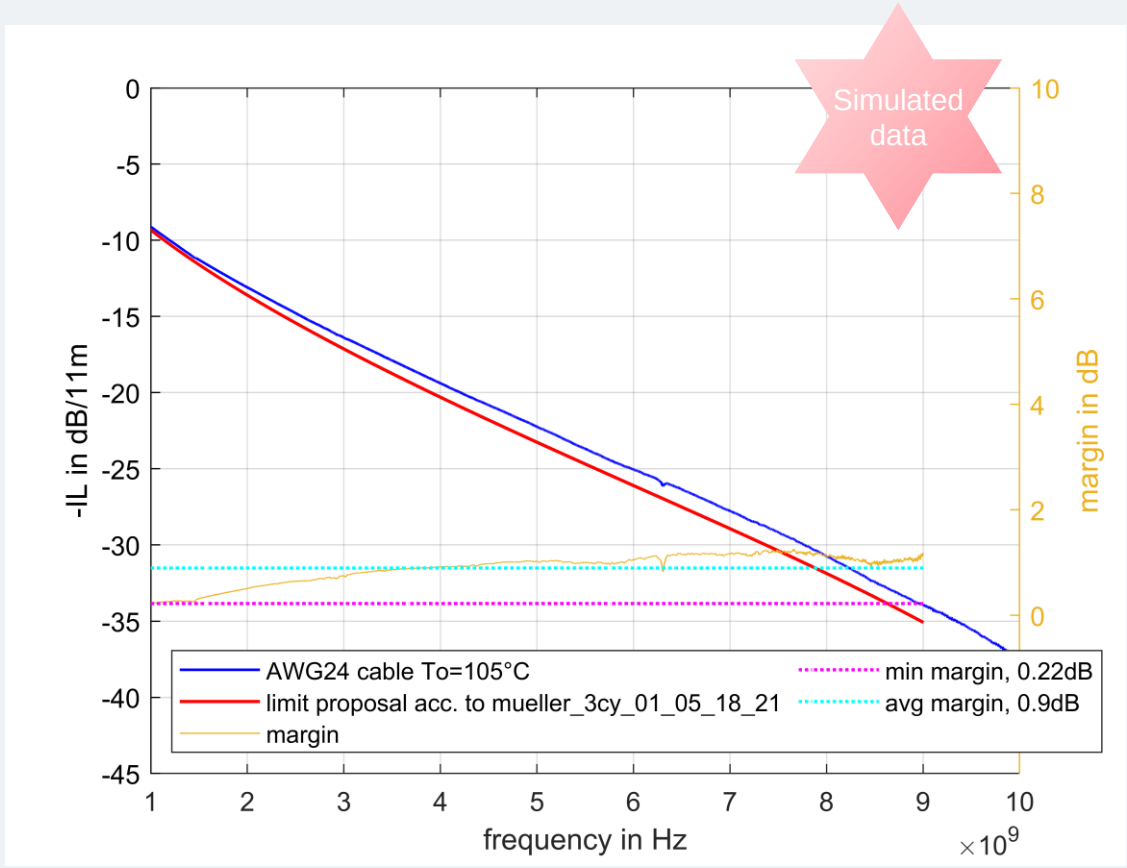




Margin estimation for 11m AWG24 SPP – based on simulated data



AWG24 RT



AWG24 To

Conclusion

- Based on measurement data (against limit proposal mueller_3cy_01_05_18_21) 9m with an AWG 26 cable is possible
- Based on estimated simulation data (against limit proposal mueller_3cy_01_05_18_21) 11m with AWG 24 is possible

Thank You