
802.3cy coupling- and screening attenuation

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Scope

- To limit EMC emissions, ingress noise, and crosstalk on shielded automotive link segments, coupling- and screening attenuation requirements are the generally established parameters to specify.
- Measurement method as in clause 149A-1 and 149-2 and more results in [mueller_3cy_01_08_03_21.pdf](#)

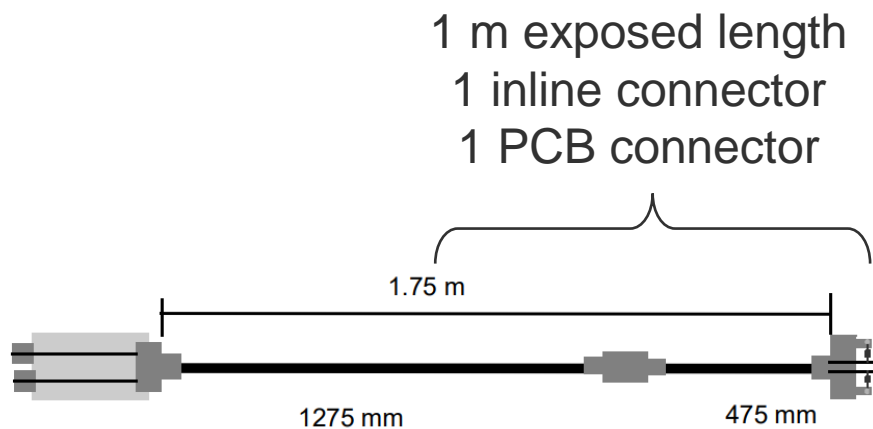


Figure 149A-1—Coupling attenuation reference cable assembly

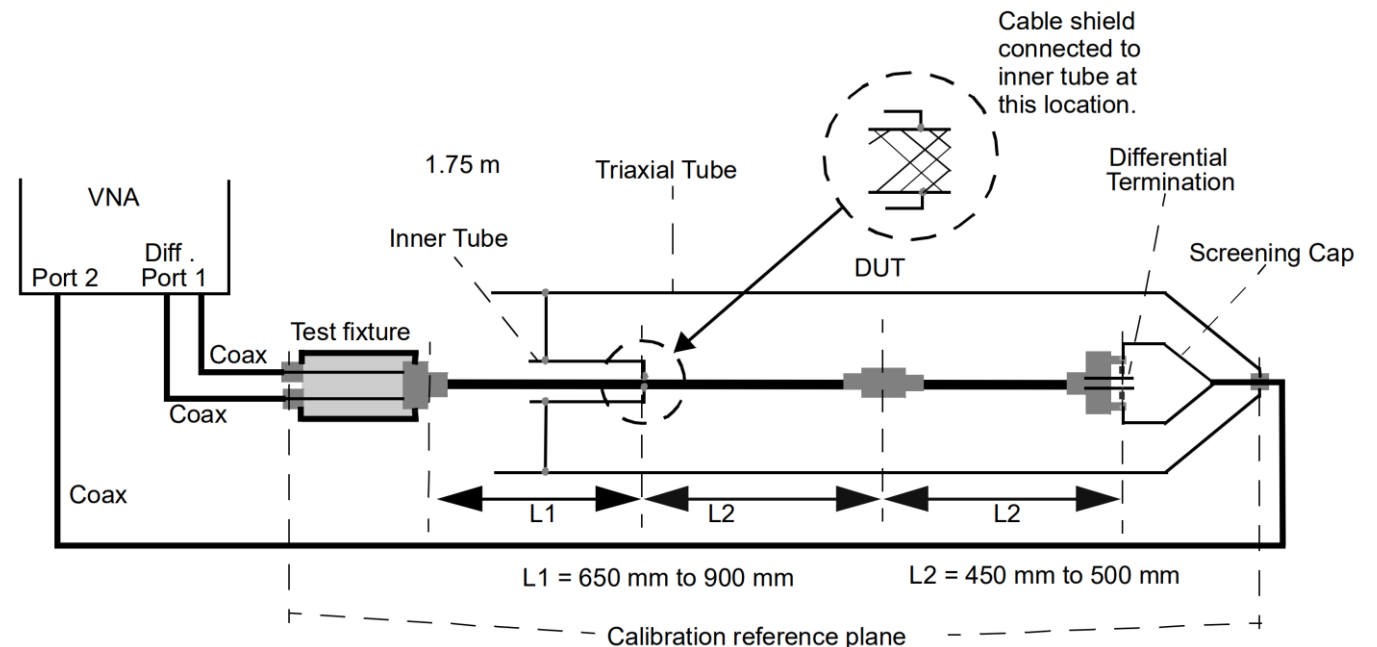


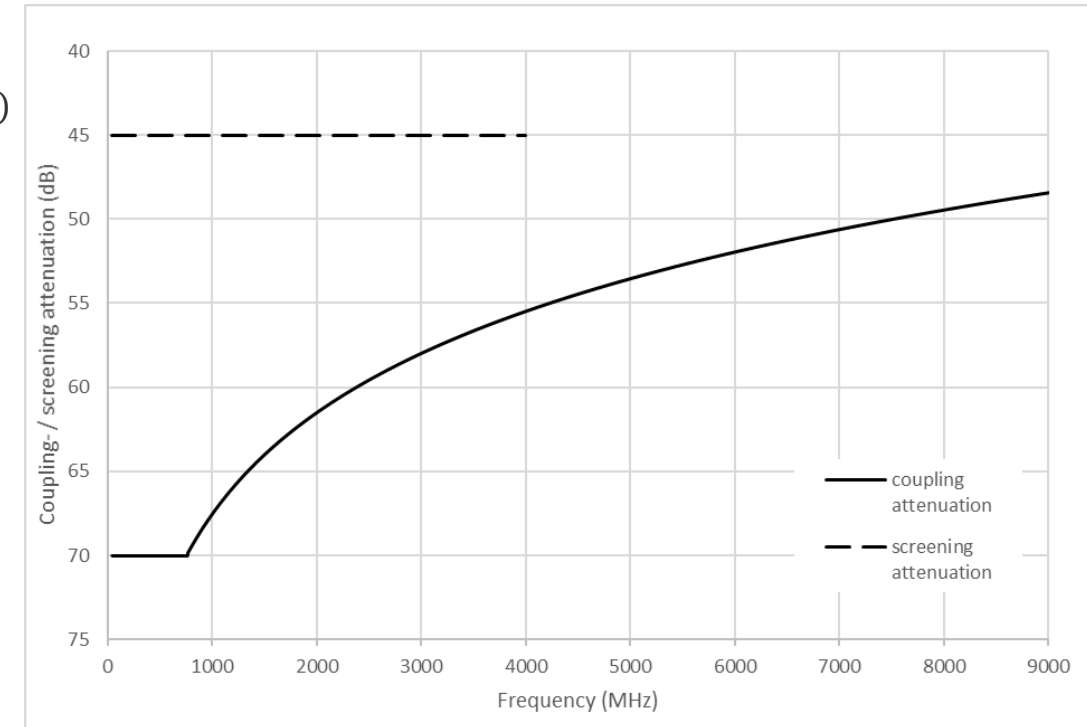
Figure 149A-2—Coupling attenuation reference cable assembly measurement setup

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Proposed material for adoption

$$\text{Coupling Attenuation}(f) \geq \begin{cases} 70 & 30 \leq f < 750 \text{ MHz} \\ 50 - 20\log_{10}\left(\frac{f}{7500}\right) & 750 \leq f \leq 9000 \text{ MHz} \end{cases} (\text{dB})$$

$$\text{Screening Attenuation}(f) \geq 45 \text{ dB} \quad 30 \leq f < 4000 \text{ MHz}$$



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Summary

- Move to adopt the coupling- and screening attenuation requirements on slide 3 of muller_3cy_01_09_28_21.pdf for the 802.3cy link segment screening and coupling attenuation per the measurement setup defined in Annex 149A.