

# **Common Mode Comment Recommendations 101,102,103,104,105**

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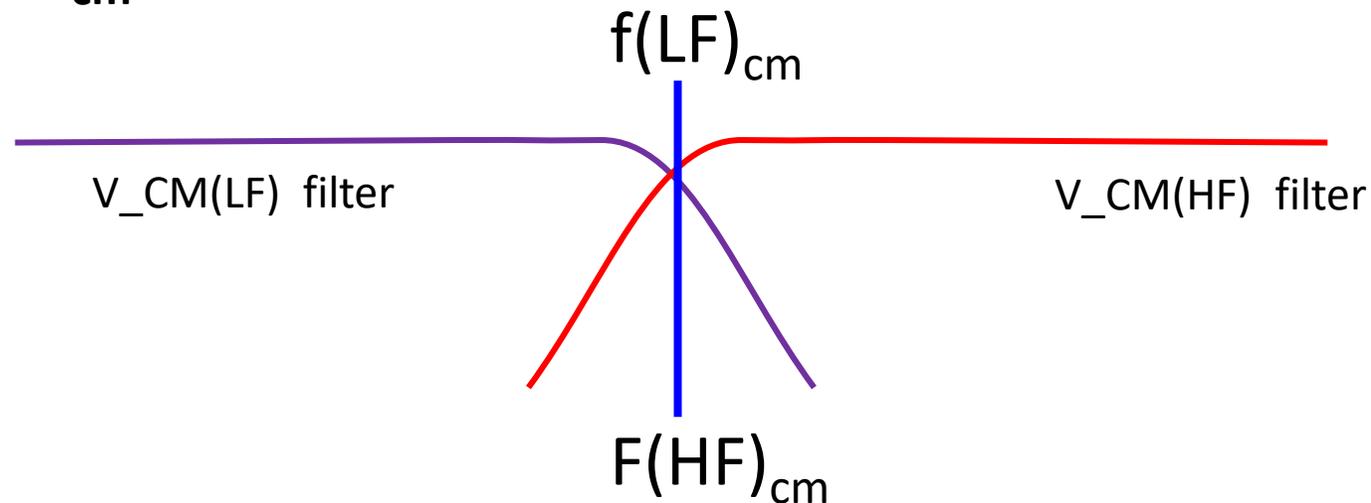
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# IEEE 802.3 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces Task Force January 12, 2022, ad-hoc meeting

- ❑ Reference: mellitz\_3ck\_adhoc\_01\_011222
- ❑ Summary: Recommendations

# Proposal 1: Separate CM voltage specification by frequency Comment: # I-101 & # I-102

- Separate low and high frequency measured common mode voltage
  - $V_{CM}(LF)$  is  $V_{CM}$  filtered with a low pass 4<sup>th</sup> order Bessel Thomson filter with 3 dB point a  $f(LF)_{cm}$
  - $V_{CM}(HF)$  is  $V_{CM}$  filtered with a high pass 4<sup>th</sup> order Bessel Thomson filter with 3 dB point a  $f(HF)_{cm}$
- $f(LF)_{cm} = f(HF)_{cm} \rightarrow 100 \text{ MHz}$



Proposal 2: for CL 163 and Annex 120F

Comments: # I-101 & # I-102

□  $V_{\text{CMPP\_LF}}$  (max) → 30 mV (new line in tables)

- Used for low frequency

□  $\text{SCMR}_{\text{HF}}$  (min) → 15 dB

- Used for high frequency

# Proposal 3: Replace CMS RMS with $V_{\text{CMPP}}$

Comments: # I-103, # I-104, and # I-105

- ❑  $V_{\text{CMPP}} = 233 \text{ mV}$  (table 162-10, #I-103)
- ❑  $V_{\text{CMPP}} = 213 \text{ mV}$  (table 120G-1, #I-104 and table 120G-3, #I-105)
- ❑ Note LF/HF was not included in these comments
  - LF/HF and correlated vs. uncorrelated adjustments could be addressed when more data is available.

**Thank You!**