

# Nomenclature: 200 Gbps/lane AUI C2M

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# Nomenclature

- Goal: Align on the nomenclature to enable effective communication during foundational discussions in the Task Force



# AUI C2M

- In the October 2022 session, Straw Poll #1 and #2 showed strong support for defining two sets of 200 Gbps/lane AUI C2M specifications

## Straw Poll #1

For the front panel pluggable use case, I am interested in 200 Gbps/lane AUI C2M specifications for:

- A. medium loss only (e.g. up to ~22 dB IL die-die per lusted\_3df\_01\_220927)
- B. higher loss only (e.g. up to ~36 dB IL die-die per lusted\_3df\_01\_220927)
- C. both medium and higher loss
- D. need more information

pick one

Results: A: 17, B: 11, C: 49, D: 12

## Straw Poll #2

For the front panel pluggable use case, I am interested in 200 Gbps/lane AUI C2M specifications for:

- A. medium loss only (e.g. up to ~22 dB IL die-die per lusted\_3df\_01\_220927)
- B. higher loss only (e.g. up to ~36 dB IL die-die per lusted\_3df\_01\_220927)
- C. both medium and higher loss
- D. need more information

Chicago Rules

Results: A: 29, B: 29, C: 66, D: 24

# Key Assumptions

- #1: Want a unique term or designation to distinguish between the two different 200 Gbps/lane AUI C2M specifications
  - xxAUI-n C2M (e.g. 800GAUI-4 C2M) could still be used in the document to refer to the family
- #2: Avoid the OIF reach designation terms to avoid industry confusion
  - XSR, VSR, and LR are not used in the context of electrical reach in IEEE Std. 802.3-2022, except when referring to the OIF specifications
- #3: Leave an avenue for additional AUI C2M specifications, if needed

# Options

- Option A: “Type”-based identifier
  - Suggested in [ghiasi 3df 01a 220215](#)
  - Use generic terms such as “Type 1” or “Type 2”
  - E.g. 800GAUI-4 C2M Type 1 or 400GAUI-2 C2M Type 2
- Option B: “Loss”-based identifier
  - Follows subjective identifiers from Straw Polls 1-2
  - Use generic relative terms such as “medium loss (M)” and “higher loss (H)”
  - E.g. 800GAUI-4 C2M-ML or 400GAUI-2 C2M-HL
- Option C: “Length”-based identifier
  - Follows naming convention from IEEE Std. 802.3ck-202x Table 120G-4
  - Use generic relative terms such as “medium (M)” and “long (L)”
  - E.g. 800GAUI-4 C2M-M or 400GAUI-2-L C2M-L

Note: Not intended to be an exhaustive list. Other options may warrant exploration.

# Example Text for Comparison

Option A

- Figure xxx–y depicts a typical C2M Type 1 application and summarizes the ILdd budget associated with the C2M Type 1 application.... Each 100GAUI-1, 200GAUI-2, and 400GAUI-4 C2M Type 1 data path contains one, two, or four differential lanes, respectively....

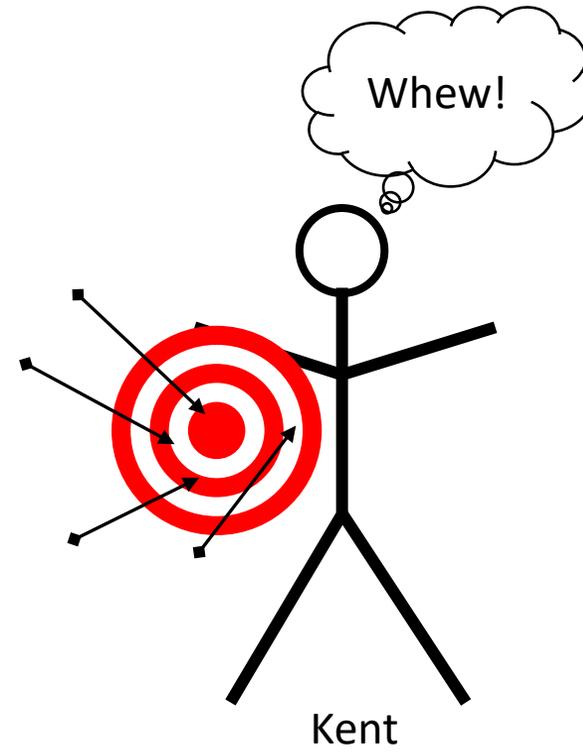
Option B

- Figure xxx–y depicts a typical C2M-ML application and summarizes the ILdd budget associated with the C2M-ML application.... Each 100GAUI-1, 200GAUI-2, and 400GAUI-4 C2M-ML data path contains one, two, or four differential lanes, respectively....

Option C

- Figure xxx–y depicts a typical C2M-M application and summarizes the ILdd budget associated with the C2M-M application.... Each 100GAUI-1, 200GAUI-2, and 400GAUI-4 C2M-M data path contains one, two, or four differential lanes, respectively....

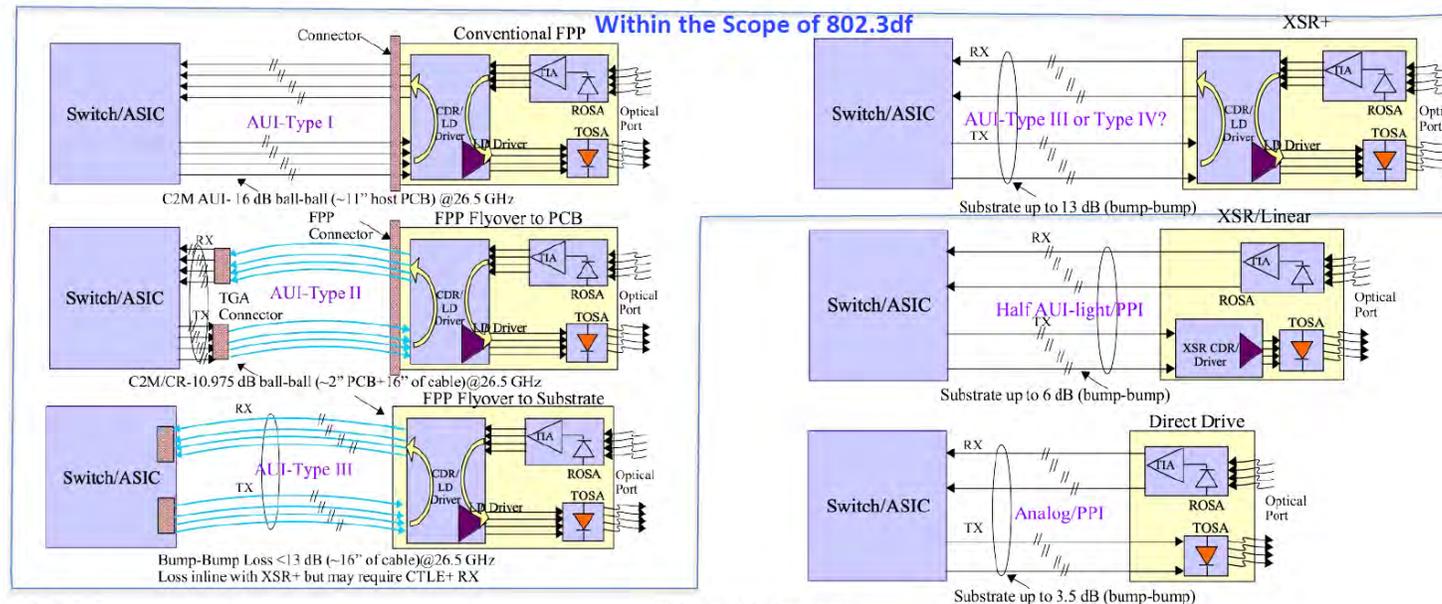
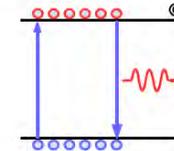
THANKS!



# Example: AUI Designation Using “Type”

## AUI and PPI Interfaces

- XSR/Direct drive generally require optics engine to be bumped and the interface is an engineered analog drive – not an AUI interface
  - Within the scope of 802.3df we have potentially up to 4 AUI classes and as few as 2 classes!



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IEEE 802.3df Task Force

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# Potential Straw Poll

- To distinguish between the two different 200 Gbps/lane AUI C2M specifications, I prefer a nomenclature style of:
  - A. “Type”-based identifier (E.g. 800GAUI-4 C2M Type 1/2/3)
  - B. “Loss”-based identifier (E.g. 800GAUI-4 C2M-LL/ML/HL)
  - C. “Length”-based identifier (E.g. 800GAUI-4 C2M-S/M/L)
  - D. No unique identifier is needed
  - E. No opinion