

# Motions to adopt baseline proposals

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Rubén Pérez-Aranda, KDPOF  
Steve Swanson, Corning

# Supporters

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- John Abbott, Corning
- Doug Harshbarger, Corning
- Suresh Donthu, Corning
- Carlos Pardo, KDPOF
- Luisma Torres, KDPOF
- Markus Dittmann, KDPOF
- Fernando Barbero, KDPOF
- Thomas Walsh, KDPOF
- Jae-Yong Chang, Keysight Technologies
- Rick Pimpinella, Panduit
- José Castro, Panduit
- Christopher Diminico, Panduit
- Bob Voss, Panduit
- Anthony New, Prysmian
- Roger King, TRUMPF Photonic Components
- Joseph Pankert, TRUMPF Photonic Components
- Kjersti Martino, Inneos
- Mabud Choudhury, OFS
- Emilio Cuesta, TE Connectivity
- Eric DiBiaso, TE Connectivity
- Roland Preis, MD Elektronik
- Takashi Fukuoka, Sumitomo Electric Industries

# Motion #2: 50 Gb/s PCS & PMA

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- Motion: Adopt PCS and PMA baseline proposals for 50 Gb/s operation, as described in [1] (perezaranda\_3cz\_03\_110521\_50Gbps\_pcs\_pma.pdf)
- Move: Rubén Pérez-Aranda
- Second: Steve Swanson
- Rationale behind:
  - This is the only 50 Gb/s PCS/PMA proposal; no counterproposals have been presented.
  - This proposal is technically supported by [2] (perezaranda\_3cz\_05\_0521\_50G\_pcs\_pma\_answers.pdf), where considerations regarding complexity and power consumption of digital and analog mixed-signal circuits were provided.
  - Proposal of [1] is based on PAM4 modulation scheme and it has been demonstrated to be optimum for OM3 + VCSEL PMD, which is a PMD that meets all the objectives of the project and is consistent with CSD responses.
  - Adoption of this proposal does not preclude future adoption of other PCS/PMA proposals more suitable for other PMD options consistent with approved project objectives and approved CSD responses.

# Motion #3: OM3 + 980nm VCSEL PMD

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- Motion: Adopt PMD, MDI and Media baseline text proposal of [7] (swanson\_3cz\_02c\_030821\_AUTO\_MDI\_Baseline.pdf)
  
- Move: Steve Swanson
  
- Second: Carlos Pardo
  
- Rationale behind:
  - This PMD is the most technically supported PMD proposal by a large number of contributions providing experimental transmission test results, reliability test results, link model, simulation results, etc.
  - This PMD is supported by the link budget analysis of [6] (perezaranda\_3cz\_01a\_030821\_link\_budget\_proposal.pdf).
  - This PMD proposal is the only PMD proposal that fulfills 100% of the project objectives and is consistent with the CSD responses.
  - Adoption of this PMD proposal does not preclude future adoption of other PMD options consistent with approved project objectives and approved CSD responses.

# Motion #4: EEE / LPI

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- Motion: Adopt Energy Efficient Ethernet (EEE) baseline proposal as described in [5] (perezaranda\_3cz\_04\_0721\_eee.pdf)
- Move: Rubén Pérez-Aranda
- Second: Luisma Torres
- Rationale behind:
  - This is the only EEE/LPI proposal; no counterproposals have been presented.
  - This EEE proposal is specified as special signaling (i.e. refresh and wake) produced by the PCS transmit function when PHY TX is in LPI mode or normal operation is signaled to be resumed.
  - This proposal is compatible with 2.5, 5, 10, 25GBASE-U already adopted PCS/PMA baseline and the 50Gb/s PCS/PMA baseline proposal of [1] (perezaranda\_3cz\_03\_110521\_50Gbps\_pcs\_pma.pdf).
  - This proposal is independent of PMD sublayer. No specific optical fiber medium and wavelength is assumed in the specifications.

# Motion #5: Loopback modes

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- Motion: Adopt loopback modes baseline proposal as described in [4] (perezaranda\_3cz\_03\_0721\_loopback\_modes.pdf).
- Move: Rubén Pérez-Aranda
- Second: John Abbott
- Rationale behind:
  - This is the only loopback modes proposal; no counterproposals have been presented.
  - Line and xMII loopbacks are specified to be implemented in the PCS sublayer. PMD interface level loopback is specified to be implemented near the PMD service interface (not including PMD) completely exercising the PCS and PMA as in normal operation.
  - This proposal is compatible with 2.5, 5, 10, 25GBASE-U already adopted PCS/PMA baseline and the 50Gb/s PCS/PMA baseline proposal of [1] (perezaranda\_3cz\_03\_110521\_50Gbps\_pcs\_pma.pdf).
  - This proposal is independent of PMD sublayer. No specific optical fiber medium and wavelength is assumed in the specifications.

# Motion #6: BER test mode

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- Motion: Adopt Bit Error Ratio (BER) test mode baseline proposal as described in [3] (perezaranda\_3cz\_02\_0721\_ber\_testmode.pdf).
- Move: Rubén Pérez-Aranda
- Second: John Abbott
- Rationale behind:
  - This is the only BER test mode proposal; no counterproposals have been presented.
  - BER test mode is specified as special operation mode of the PCS sublayer.
  - This proposal is compatible with 2.5, 5, 10, 25GBASE-U already adopted PCS/PMA baseline and the 50Gb/s PCS/PMA baseline proposal of [1] (perezaranda\_3cz\_03\_110521\_50Gbps\_pcs\_pma.pdf).
  - This proposal is independent of PMD sublayer. No specific optical fiber medium and wavelength is assumed in the specifications.

# References

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- [1] R. Pérez-Aranda, “50GBASE-AU baseline proposal,” May 2021, [Online], Available: [https://www.ieee802.org/3/cz/public/11\\_may\\_2021/perezaranda\\_3cz\\_03\\_110521\\_50Gbps\\_pcs\\_pma.pdf](https://www.ieee802.org/3/cz/public/11_may_2021/perezaranda_3cz_03_110521_50Gbps_pcs_pma.pdf)
- [2] R. Pérez-Aranda, “PAM4 50 Gb/s PCS/PMA Answers to unasked questions,” May 2021, [Online], Available: [https://www.ieee802.org/3/cz/public/may\\_2021/perezaranda\\_3cz\\_05\\_0521\\_50G\\_pcs\\_pma\\_answers.pdf](https://www.ieee802.org/3/cz/public/may_2021/perezaranda_3cz_05_0521_50G_pcs_pma_answers.pdf)
- [3] R. Pérez-Aranda, “Bit Error Ratio (BER) test mode proposal,” July 2021, [Online], Available: [https://www.ieee802.org/3/cz/public/jul\\_2021/perezaranda\\_3cz\\_02\\_0721\\_ber\\_testmode.pdf](https://www.ieee802.org/3/cz/public/jul_2021/perezaranda_3cz_02_0721_ber_testmode.pdf)
- [4] R. Pérez-Aranda, “Loopback modes proposal,” July 2021, [Online], Available: [https://www.ieee802.org/3/cz/public/jul\\_2021/perezaranda\\_3cz\\_03\\_0721\\_loopback\\_modes.pdf](https://www.ieee802.org/3/cz/public/jul_2021/perezaranda_3cz_03_0721_loopback_modes.pdf)
- [5] R. Pérez-Aranda et al., “BASE-U EEE proposal,” July 2021, [Online], Available: [https://www.ieee802.org/3/cz/public/jul\\_2021/perezaranda\\_3cz\\_04\\_0721\\_eee.pdf](https://www.ieee802.org/3/cz/public/jul_2021/perezaranda_3cz_04_0721_eee.pdf)
- [6] R. Pérez-Aranda, “Link budget proposal for 50, 25, 10, 5 and 2.5 Gb/s,” July 2021, [Online], Available: [https://www.ieee802.org/3/cz/public/3\\_aug\\_2021/perezaranda\\_3cz\\_01a\\_030821\\_link\\_budget\\_proposal.pdf](https://www.ieee802.org/3/cz/public/3_aug_2021/perezaranda_3cz_01a_030821_link_budget_proposal.pdf)
- [7] S. Swanson, “Proposed IEEE 802.3cz PMD, MDI and Media Baseline Text”, August 2021, [Online], Available: [https://www.ieee802.org/3/cz/public/3\\_aug\\_2021/swanson\\_3cz\\_02c\\_030821\\_AUTO\\_MDI\\_Baseline.pdf](https://www.ieee802.org/3/cz/public/3_aug_2021/swanson_3cz_02c_030821_AUTO_MDI_Baseline.pdf)



Thank you