

Adopted PHY baselines

George Zimmerman / CME Consulting, Inc.

5/15/2025

PHY baseline motions (5/13/2025)

5/13/2025:

- **Motion #1** Move that the IEEE P802.3dg Task Force
adopt slides 13 to 36 of [Curran_3dg_01_05132025.pdf](#) (EEE & LPI signaling)
adopt slides 13 to 24 of [Curran_3dg_02_05132025.pdf](#) (Block encoding & Remote fault)
adopt slides 12 to 18 of [Curran_3dg_03_05132025.pdf](#) (PCS Receive)
adopt slides 14 to 36 of [Curran_3dg_04_05132025.pdf](#) (Clause 45 registers)

PHY baseline motions (3/12/2025)

3/12/2025:

- **Motion #1** Move that the IEEE P802.3dg Task Force adopts slides 1 to 18 of [Murray_3dg_03a_03122025.pdf](#) with editorial licenses.
 - Complete Clause 45 register set for 100BASE-T1L based on 10BASE-T1L
- **Motion #2** Move that the IEEE P802.3dg Task Force adopt slides 10 to 13 of [Murray_3dg_02_03122025.pdf](#).
 - PCS Block structure, replacing sequence ordered sets supporting aLF/aRF signalling
- **Motion #3** Move that the IEEE P802.3dg Task Force adopt slide 10 of [Murray_3dg_01_03122025.pdf](#)
 - Add assert LF / assert RF to Clause 22 MII

PHY baseline motions (1/21/2025)

1/21/2025:

- **Motion #1: Move that the IEEE P802.3dg Task Force adopt slides 2 to 40 of [Curran_3dg_01a_01202025.pdf](#)**
 - PHY Control and Training, State Diagrams, PCS modes, Primitives, Refresh Monitor, Capabilities exchange and Clause 45 advertisements

PHY baseline motions (11/14/2024)

11/14/2024:

- **Motion #3:** Move that the IEEE P802.3dg Task Force adopt slides 3 to 8 and slide 10 of [Murray_3dg_01a_11132024.pdf](#)
 - Encoding and decoding rules for the PCS using $8N/(8N+1)$ Encoding, and optional support of Sequence Ordered Sets
- **Motion #4:** Move that the IEEE P802.3dg Task Force adopt slides 4 to 7 of [Murray_3dg_03a_11132024.pdf](#)
 - EEE LPI quiet-refresh timing and definition of the auxiliary bit for signaling insufficient LPI refresh.
- **Motion #5:** Move that the IEEE P802.3dg Task Force adopt slides 3 to 7 of [Fitzgerald_3dg_01_11132024.pdf](#)
 - Auto-Negotiation parameters including technology definition bits, transmit level negotiation, priority resolution, & break_link_timer

PHY baseline motions (9/17/2024)

9/17/2024:

- **Motion #6: Move that the IEEE P802.3dg Task Force adopt slides 2, 3, and 4 of [murray_3dg_02_09172024.pdf](#)**
 - Slides 2 & 3 are a 33-bit side stream PCS Tx scrambler, based on 40.3.1.3.2, including how the data octet is combined with scrambler bits
 - Slide 4 is a format for a PMA training frame, composed of 16 partial PHY frames with several TBD parameters including partial frame length and infofield contents.
- **Motion #8: Move that IEEE 802.3dg not include an OAM channel, and set the auxiliary bit in the PHY frame to zero**

PHY baseline motions (5/13 & 7/15/2024)

7/15/2024:

- **Motion #1 Adopt a proposal for a 100BASE-T1L PHY using PAM-3 8b6T in Murray_3dg_07152024.pdf** (*as amended during discussion*)

https://www.ieee802.org/3/dg/public/May_2024/Murray_3dg_01a_07152024.pdf

- **Motion #2 Adopt:**

- Sequence ordered set of the MII according to [Lo_3dg_01a_0724.pdf](#), page 3.
- The nibble combining at the input of the 8N/(8N+1) encoder, and byte splitting rules at the output of the 8N/(8N+1) decoder according to [Lo_3dg_01a_0724.pdf](#), page 10, 11, 12, 15 and page 9 for ordered sets.
- The 100BASE-T1L 8N/(8N+1) encoder/decoder with modifications according to [Lo_3dg_01a_0724.pdf](#), pages 13, 14

NOTE: THIS WAS MODIFIED BY MOTION 3 ON 11/14/2024

5/13/2024: (These motions refined and implemented by the above)

- **Motion #1** Move that the TF select PAM3 as the modulation for the IEEE 802.3dg PHY
- **Motion #2 :** Move that 802.3dg add the capability to support sequence ordered sets to the MII signaling.