| $\begin{aligned} & \text { Session } \\ & 01-2023 \end{aligned}$ | Motion \# $4$ | Motion Move to approve motions related to "IEEE P802.3dj $200 \mathrm{~Gb} / \mathrm{s}$, 400 | Referenced File <br> https://www.ieee802.org/3/di/public/23 01/23 0116/dambrosia 3di 01a | Mover <br> Ali Ghiasi | Second Adee Ran | Results 802.3: Passed by | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathrm{Gb} / \mathrm{s}, 800 \mathrm{~Gb} / \mathrm{s}$, and $1.6 \mathrm{~Tb} / \mathrm{s}$ Ethernet" previously approved by IEEE P802.3df Task Force noted on Slide \#7 of https://www.ieee802.org/3/dj/public/23_01/23_0116/dambrosia_3dj_ 01a_230116.pdf | 230116.pdf |  |  | Unanimous Consent |  |
| 01-2023 | 5 | Move to adopt timeline for IEEE P802.3dj noted on slide \#8 of https://www.ieee802.org/3/dj/public/23_01/23_0116/dambrosia_3dj_ 01a_230116.pdf | $\begin{aligned} & \text { https://www.ieee802.org/3/dj/public/23 01/23 0116/dambrosia 3dj 01a } \\ & \text { 230116.pdf } \end{aligned}$ | Adee Ran | Mike Dudek | 802.3: Passed by Unanimous Consent |  |
| 01-2023 | 6 | Move to adopt lusted_3dj_02a_230116.pdf slide 6 as the baseline for the 16-lane 1.6TAUI-16 C2M and C2C | $\begin{aligned} & \text { https://www.ieee802.org/3/dj/public/23_01/23_0116/lusted_3dj_02a } \\ & \text { 230116.pdf } \end{aligned}$ | Ran | Dudek | 802.3: Passed by Unanimous Consent |  |
| 01-2023 | 10 | Move to adopt gustlin_3df_01b_230206, slides 6-12, as the baseline for the 1.6 TbE PCS/FEC, with the noted details (PCS lane forming and AM construction) to be determined later | https://www.ieee802.org/3/dj/public/23 01/23 0206/gustlin 3dj 01b 230 206.pdf | Gustlin | Brown | 802.3: Passed by Unanimous Consent | Replaced by May 2023 Motion \#4 |
| 03-2023 | 1 | Move to: <br> Replace the following objective: <br> - Define a physical layer specification that supports $800 \mathrm{~Gb} / \mathrm{s}$ operation over a single SMF in each direction with lengths up to at least 10 km with the following two objectives: <br> - Define a physical layer specification that supports $800 \mathrm{~Gb} / \mathrm{s}$ operation over 1 wavelength over a single SMF in each direction with lengths up to at least 10 km <br> - Define a physical layer specification that supports $800 \mathrm{~Gb} / \mathrm{s}$ operation over 4 wavelengths over a single SMF in each direction with lengths up to at least 10 km |  | Nowell | Johnson | 802.3: 63 / 3 / 12 |  |
| 03-2023 | 2 | Move to adopt the following objective for 400GBASE-DR2-2: <br> - Define a physical layer specification that supports $400 \mathrm{~Gb} /$ s operation over 2 pairs of SMF with lengths up to at least 2 km |  | Welch | Johnson | 802.3: Passed by Unanimous Consent |  |
| 03-2023 | 3 | Move to: <br> - adopt opsasnick_3dj_01a_2303, slides 3, 5-9, 12-13, as a supplement to the previously adopted 1.6TbE PCS baseline from gustlin_3dj_01b_230206.pdf. | https://www.ieee802.org/3/dj/public/23 03/opsasnick 3dj 01a 2303.pdf | Opsasnick | He | 802.3: Passed by Unanimous Consent |  |
| 03-2023 | 4 | Move to: <br> - Adopt ran_3dj_01a_2303, slides 6-24 as a baseline for the PMAs with 200 Gbps per lane signaling | https://www.ieee802.org/3/dj/public/23 03/ran 3dj 01a 2303.pdf | Ran | Nicholl | 802.3: 69 / 1/13 |  |
| 03-2023 | 5 | Move to: <br> Adopt patra_3dj_01b_2303 slides 6 to $8,13,14$, and 20 to 23 as part of the FEC approach for <br> - 800GBASE-DR4, 800GBASE-DR4-2, 800GBASE-FR4 <br> - 400GBASE-DR2, 400GBASE-DR2-2* (Note: 400GBASE-DR2-2 pending WG objective approval) <br> - 200GBASE-DR1, 200GBASE-FR1 <br> with FEC lane rate, convolutional interleaver details, and 1.6 T support to be determined later | https://www.ieee802.org/3/di/public/23 03/patra 3dj 01b 2303.pdf | Healey | Dudek | 802.3: $70 / 5$ / 15 |  |
| 05-2023 | 3 | Move to adopt the PCS, DTE XS, and PHY XS noted on slide \#4 of dambrosia_3dj_01a_2305 for all $200 \mathrm{~Gb} / \mathrm{s}$ per lane signaling based PHYs for $200 \mathrm{GbE}, 400 \mathrm{GbE}$, and 800 GbE | https://www.ieee802.org/3/di/public/23 05/dambrosia 3dj 01a 2305.pdf | Dudek | Nicholl | 802.3: Passed by Unanimous Consent |  |
| 05-2023 | 4 | Move to adopt gustlin_3dj_01b_230206, slides 6-12, as the baseline for the 1.6TbE PCS/FEC | $\begin{aligned} & \frac{\text { https://www.ieee802.org/3/dj/public/23 01/23 0206/gustlin 3dj 01b } 230}{\text { 206.pdf }} \end{aligned}$ | Gustlin | Ran | 802.3: Passed by Unanimous Consent | Replaces Jan 2023 Motion \#4 |
| 05-2023 | 5 | Move to: <br> - Adopt the following backplane objectives for 200GBASE-KR1, 400BASE-KR2, 800GBASE-KR4, and 1.6TBASE-KR8: <br> - Define a physical layer specification that supports $200 \mathrm{~Gb} / \mathrm{s}$ operation over 1 lane over electrical backplanes supporting a die-to-die insertion loss $<=40 \mathrm{~dB}$ at 53.125 GHz <br> - Define a physical layer specification that supports $400 \mathrm{~Gb} / \mathrm{s}$ operation over 2 lanes over electrical backplanes supporting a die-to-die insertion loss $<=40 \mathrm{~dB}$ at 53.125 GHz <br> - Define a physical layer specification that supports $800 \mathrm{~Gb} / \mathrm{s}$ operation over 4 lanes over electrical backplanes supporting a die-to-die insertion loss <= 40 dB at 53.125 GHz <br> - Define a physical layer specification that supports $1.6 \mathrm{~Tb} / \mathrm{s}$ operation over 8 lanes over electrical backplanes supporting a die-to-die insertion loss $<=40 \mathrm{~dB}$ at 53.125 GHz | Key Motions | Mellitz | Weaver | 802.3: Passed by Unanimous Consent |  |

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| 05-2023 | 6 | Move to: <br> - Adopt differential PAM4 signaling as the basis for all of the $200 \mathrm{Gbps} / \mathrm{lane}$ passive copper cable and backplane PMDs and adopt RS(544,514,10) as the only FEC encoding for all of the 200 Gbps /lane passive copper cable and backplane PMDs |  | Li, Mike | Ghiasi | 802.3: Passed by Unanimous Consent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 05-2023 | 7 | Move to adopt a CRU bandwidth and jitter tolerance corner frequency of 4 MHz for all 802.3dj PMD/AUIs operating at RS544 FEC (The calculation for CRU BW is based on the following fBaud/26562.5) |  | Ghiasi | Li, Mike | 802.3: Passed by Unanimous Consent |
| 05-2023 | 8 | Move to: <br> - adopt a DERO value of 2.67e-5 (equivalent to measured BER of $4 \mathrm{e}-5$ with precoding ON) as the total allocation for higher-loss AUls within a PHY (BER division between C2C and C2M as well as the measurement method to be determined later) |  | Ran | Kota | 802.3: $75 / 3 / 20$ |
| 05-2023 | 9 | Move to: <br> - Adopt patra_3dj_01b_2303 slides 6 to 8,13,14, and 20 to 23 as part of the FEC approach for 800GBASE-LR4 with FEC lane rate and convolutional interleaver details to be determined later | https://www.ieee802.org/3/di/public/23 03/patra 3dj 01b 2303.pdf | Rodes | Ghiasi | 802.3: Passed by Unanimous Consent |
| 05-2023 | 10 | Move to: <br> - adopt DP-16QAM modulation on a single wavelength as the basis for the following objectives: <br> - Define a physical layer specification that supports $800 \mathrm{~Gb} / \mathrm{s}$ operation: <br> - over 1 wavelength over a single SMF in each direction with lengths up to at least 10 km <br> - over a single SMF in each direction with lengths up to at least 40 km |  | Nowell | Brown | 802.3: Passed by Unanimous Consent |
| 07-2023 | 4 | Move to adopt the direction of adding an option to support only RS544 FEC (aka Bypass Inner FEC) for the single wavelength 500 m and 2 km optical PMDs with the mechanism to enable it remaining TBD |  | Welch | Rechtman | 802.3: Passed by Unanimous Consent |
| 07-2023 | 5 | Move to adopt BCH FEC as defined in kota_3dj_01a_2307.pdf slides 6-18 as the baseline FEC specification for the single wavelength $10 \mathrm{~km} 800 \mathrm{~Gb} / \mathrm{s}$ optical PMD. | https://www.ieee802.org/3/dj/public/23 07/kota 3dj 01a 2307.pdf | Maniloff | Stassar | 802.3: 60 / 14 / 20 |
| 07-2023 | 6 | Move to adopt one DERO value of $2.67 \mathrm{e}-5$ (equivalent to measured BER of $4 \mathrm{e}-5$ with precoding ON) as the total allocation for 200Gbps/lane AUIs within a PHY (BER division between C2C and C2M as well as the measurement method to be determined later) |  | Ran | Tobey P. -R. Li | 802.3: Passed by Unanimous Consent |
| 07-2023 | 7 | Move to adopt a die-to-die insertion loss <= 40 dB at 53.125 GHz for 200GBASECR1, 400GBASE-CR2, 800GBASE-CR4 and 1.6TBASE-CR8 PHYs |  | Mike Li | Tracy | 802.3: Passed by Unanimous Consent |
| 07-2023 | 8 | Move to adopt stateless 64b/66b encode and decode, as defined in opsasnick_3dj_01a_2307.pdf slides 7 and 8, as an option for 200GbE and 400GbE for all 200G/lane PHY/PMDs | https://www.ieee802.org/3/di/public/23 07/opsasnick 3dj 01a 2307.pdf | Opsasnick | Gustlin | 802.3: Passed by Unanimous Consent |
| 07-2023 | 9 | Move to adopt the same inner FEC architecture used for $200 \mathrm{GbE} / 400 \mathrm{GbE} / 800 \mathrm{GbE}$ for 1.6 TbE SMF optical PMDs ( $500 \mathrm{~m} / 2 \mathrm{~km}$ ) |  | Ghiasi | Kota | 802.3: Passed by Unanimous Consent |
| 07-2023 | 10 | Move to adopt the $4 x$ RS codewords interleaving for 200GbE and 400 GbE using 200G/lane AUls or PMDs, as shown in slides 4-6 and 10 of he_3dj_02a_2307 along with deskew (alignment) to codeword boundaries for 100G/lane input lanes. | https://www.ieee802.org/3/dj/public/23 07/he 3dj 02a 2307.pdf | He | Ran | 802.3: Passed by Unanimous Consent |
| 07-2023 | 11 | Move to adopt the FEC_I sublayer architecture with 2006 throughput convolutional interleaver as shown in slides 6-11 of he_3dj_01_2307 for 200G/400G/800G/1.6TbE | https://www.ieee802.org/3/dj/public/23 07/he 3dj 01 2307.pdf | He | Nicholl | 802.3: Passed by Unanimous Consent |
| 07-20-2023 | 1 | Move to adopt the 200G/L Die/Device Model changes to Annex 93A (COM ) proposed in lim_3dj_01a_2307 slides 6 and 7 | https://www.ieee802.org/3/dj/public/23 0720/lim 3dj 01a 2307.pdf | Mike Li | Weaver | 802.3: Passed by Unanimous Consent |
| 07-20-2023 | 3 | Move to adopt the 200G/L package model to Annex 93A (COM) proposed in https://www.ieee802.org/3/dj/public/23_07/benartsi_3dj_02_2307.pdf slide 5 | https://www.ieee802.org/3/di/public/23 07/benartsi 3dj 02 2307.pdf | Dudek | Ben-Artsi | 802.3: 22 / 5 / 10 |
| 09-2023 | 3 | Move to adopt the self-sync method for inner FEC as described in pages 7-11 of he_3dj_01a_2309. | https://www.ieee802.org/3/dj/public/23 09/he 3dj 01a 2309.pdf | He | Gustlin | 802.3: Passed by Unanimous Consent |
| 09-2023 | 4 | Move to adopt the Inner FEC Pad insertion changes of pad block from 384 bits to 1024 bits ( 8 Inner FEC CWs) and insertion period from 3264 CWs to 8704 CWs , including 8:1 Hamming interleaver protection for pad bits, as shown in rechtman_3dj_01a_2309 slides 5-7 and 10. | https://www.ieee802.org/3/di/public/23 09/rechtman 3dj 01a 2309.pdf | Rechtman | He | 802.3: Passed by Unanimous Consent |
| 09-2023 | 5 | Move to adopt the the CR host and cable assembly insertion loss budget proposed in diminico_3dj_01a_2309, slide 7 for the symmetrical CR use case. | https://www.ieee802.org/3/dj/public/23 09/diminico 3dj 01a 2309.pdf | Diminico | Tracy | 802.3: Passed by Unanimous Consent |


| 09-21-2023 | 1 | Move to adopt C2C DER_0 $=0.67 \mathrm{E}-5$ and C2M DER_0 $=2 \mathrm{E}-5$ for the case when the AUI DER_0 is split across the C2M and the C2C inside of a Type 1 or Type 2 PHY per lusted_3dj_01a_230921, slide 7 | https://www.ieee802.org/3/dj/public/23 0921/lusted 3dj 01a 230921.pdf | Brown | Li, Mike | 802.3: Passed by Unanimous Consent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 09-21-2023 | 2 | Move to adopt C2M DER_0 $=2 \mathrm{E}-5$ for the case when the AUI is only a C2M (no C2C) inside of a Type 1 or Type 2 PHY per choice A in lusted_3dj_01a_230921, slide 9 | https://www.ieee802.org/3/dj/public/23 0921/lusted 3dj 01a 230921.pdf | Brown | Ghiasi | 802.3: 46 / 4 / 9 |
| 11-2023 | 7 | Move to adopt the proposal on slide 2 of lusted_3dj_07a_2311 | https://www.ieee802.org/3/dj/public/23 11/lusted 3dj 07a 2311.pdf | Ofelt | Dudek | 802.3: Passed by Unanimous Consent |
| 11-2023 | 8 | Move to adopt gustlin_3dj_01_2311 to fill the 802.3dj logic baseline holes that were identified in brown_3dj_01_2309 | https://www.ieee802.org/3/dj/public/23 11/gustlin 3dj 01 2311.pdf | Gustlin | Nicholl, Shawn | 802.3: Passed by Unanimous Consent |
| 11-2023 | 9 | Move to adopt the two package approach proposed in lusted_3dj_02_2311 slide \#4 | https://www.ieee802.org/3/dj/public/23 11/lusted 3dj 02 2311.pdf | Li, Mike | Ben-Artsi | 802.3: Passed by Unanimous Consent |
| 11-2023 | 10 | Move to adopt the proposed Class A and Class B package parameters in lim_3dj_01a_2311 slides 8-9 for 200G/lane backplane and copper cable PHYs as a baseline proposal | https://www.ieee802.org/3/dj/public/23 11/lim 3dj 01a 2311.pdf | Li, Mike | Ben-Artsi | 802.3: Passed by Unanimous Consent |
| 11-2023 | 11 | Move to adopt the host and cable assembly insertion loss budgets proposed in the magenta box "proposed baseline content" in tracy_3dj_01a_2311, slide 12, for the copper cable objectives. Specific host and cable assembly nomenclature is a TBD. | https://www.ieee802.org/3/dj/public/23 11/tracy 3dj 01a 2311.pdf | Weaver | Noujeim | 802.3: Passed by Unanimous Consent |
| 11-2023 | 12 | Move to adopt DER_0 $=2 \mathrm{e}-4$ for $200 \mathrm{~Gb} / \mathrm{s}$ per lane backplane and copper cable PMD link |  | Healey | Heck | 802.3: Passed by Unanimous Consent |
| 11-2023 | 13 | Move to adopt the "TP1-TP4 IL" column in the table and MCB insertion loss (2.7 dB) on slide 9 of diminico_3dj_01_2311 for 200GBASE-CR1, 400GBASE-CR2, 800GBASE-CR4 and 1.6TBASE-CR8 PHYs. | https://www.ieee802.org/3/di/public/23 11/diminico 3dj 01 2311.pdf | Diminio | Tracy | 802.3: Passed by Unanimous Consent |
| 11-2023 | 15 | Move to adopt the 800GBASE-LR4 PMD baseline as shown in rodes_3dj_01a_2311 pages 4-9 | https://www.ieee802.org/3/dj/public/23 11/rodes 3dj 01a 2311.pdf | Rodes | Liu | 802.3: 78 / 1/14 |
| 11-28-2023 | 1 | Move to adopt timeline for IEEE P802.3dj noted on slide \#6 of https://www.ieee802.org/3/dj/public/23_1128/dambrosia_3dj_01b_2311.pdf | https://www.ieee802.org/3/dj/public/23 1128/dambrosia 3dj 01b 2311.p df | Nowell | Ghiasi | 802.3: Passed by Unanimous Consent |
| 01-2024 | 2 | Move to adopt lusted_nowell_3dj_01_2401 page 3 | https://www.ieee802.org/3/dj/public/24 01/lusted nowell 3dj 01 2401.pd f | Lusted | Nowell | 802.3: Passed by Unanimous Consent |
| 01-2024 | 3 | Move to adopt lusted_nowell_3dj_01_2401 page 2 | https://www.ieee802.org/3/dj/public/24 01/lusted nowell 3dj 01 2401.pd f | Nowell | Brown | 802.3: 76 / 13 / 12 |
| 01-2024 | 5 | Move to adopt the 800GBASE-FR4-500 baseline as shown in welch_3dj_01a_2401 pages 10-16 | https://www.ieee802.org/3/dj/public/24 01/welch 3dj 01a 2401.pdf | Nowell | Lusted | 802.3: 68 / 16 / 14 |
| 01-2024 | 6 | Move to adopt the COM Die/Device model parameters in lim_3dj_01_2401 slide 8 for 200G/Lane KR, CR, AUI chip-to-chip and chip-to-module | https://www.ieee802.org/3/dj/public/24 01/lim 3dj 01 2401.pdf | Lusted | Nowell | 802.3: Passed by Unanimous Consent |
| 01-2024 | 7 | Move to adopt lusted_nowell_3dj_01_2401 page 4 | https://www.ieee802.org/3/dj/public/24 01/lusted nowell 3dj 01 2401.pd f | Lusted | Nowell | 802.3: 58/3/20 |
| 01-2024 | 9 | Move to adopt lusted_nowell_3dj_01_2401 page 6 | https://www.ieee802.org/3/dj/public/24 01/lusted nowell 3dj 01 2401.pd | Lusted | Nowell | 802.3: 57 / 5 / 15 |
| 01-2024 | 10 | Move to adopt lusted_nowell_3dj_01_2401 page 7 | https://www.ieee802.org/3/dj/public/24 01/lusted nowell 3dj 01 2401.pd f | Lusted | Ran | 802.3: Passed by Unanimous Consent |
| 01-2024 | 11 | Move to adopt the 800GBASE-LR1 state diagrams in bruckman_3dj_01a_2401, slides 4-6 (with values of N and M as TBD) | https://www.ieee802.org/3/dj/public/24 01/bruckman 3dj 01a 2401.pdf | Bruckman | Maniloff | 802.3: Passed by Unanimous Consent |
| 01-2024 | 12 | Move to adopt the IMDD inner FEC example test vectors in levy_3dj_02a_2401.7z, as described in levy_3dj_01b_2401. | https://www.ieee802.org/3/dj/public/24_01/levy_3dj_01b_2401.pdf https://www.ieee802.org/3/dj/public/24_01/levy_3dj_02a_2401.7z | Brown | He | 802.3: Passed by Unanimous Consent |
| 03-2024 | 2 | Move to adopt the following as baselines for the 800GBASE-ER1-20 PHY <br> - optical: wang_3dj_01a_2403 pages 7-10 <br> - logic: nicholl_3dj_02a_2307 | https://www.ieee802.org/3/dj/public/24_03/wang_3dj_01a_2403.pdf https://www.ieee802.org/3/dj/public/23_07/nicholl_3dj_02a_2307.pdf | Williams | Kareti | 802.3: 58 / 9 / 13 |
| 03-2024 | 3 | Move to amend the adopted 800GBASE-ER1 and 800GBASE-ER1-20 logic baselines (nicholl_3dj_02a_2307) based on slides 6-9 of huber_3dj_01a_2403. | https://www.ieee802.org/3/dj/public/23 07/nicholl 3dj 02a 2307.pdf https://www.ieee802.org/3/dj/public/24 03/huber 3dj 01a 2403.pdf | Huber | Sluyski | 802.3: Passed by Unanimous Consent |
| 03-2024 | 4 | Move to amend the 800GBASE-ER1 optical baseline (williams_3dj_01a_2305 pgs 7-10) per wang_3dj_01a_2403 pages 7-10 | https://www.ieee802.org/3/dj/public/23_05/williams_3dj_01a_2305.pdf https://www.ieee802.org/3/dj/public/24_03/wang_3dj_01a_2403.pdf | Williams | Kareti | 802.3: Passed by Unanimous Consent |
| 03-2024 | 5 | Move to adopt malicoat_3dj_01a_2403 as the MDI baseline for 400GBASE-DR2 and 400GBASE-DR2-2 | https://www.ieee802.org/3/dj/public/24 03/malicoat 3dj 01a 2403.pdf | Malicoat | Stassar | 802.3: Passed by Unanimous Consent |
| 03-2024 | 8 | Move to adopt the AUI C2C DER_0 per slide 6 of lusted_3dj_04_2403 | https://www.ieee802.org/3/dj/public/24 03/lusted 3dj 04 2403.pdf | Heck | Dudek | 802.3: 51 / 1/27 |
| 03-2024 | 9 | Move to adopt the CR MDI connector naming per diminico_3dj_01_2403, slide 4 | https://www.ieee802.org/3/di/public/24 03/diminico 3dj 01 2403.pdf | Diminico | Kocsis | 802.3: 58/5 / 16 |
| 03-2024 | 11 | Move to adopt the proposal for automatic polarity detection and correction in the start-up protocol, per ran_3dj_01a_2403 | https://www.ieee802.org/3/dj/public/24 03/ran 3dj 01a 2403.pdf | Ran | HEck | 802.3: Passed by Unanimous Consent |
| 03-2024 | 12 | Move to adopt the proposal for training pattern changes in the start-up protocol, per ran_3dj_03a_2403 | https://www.ieee802.org/3/dj/public/24 03/ran 3dj 03a 2403.pdf | Ran | Brown | 802.3: 60 / 1/22 |

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13 Move to adopt the start-up protocol to enable segment-by-segment training per ran 3di 042403 sidint
https://www.ieee802.org/3/dj/public/24_03/ran_3dj_04_2403.pdf
https://www.ieee802.org/3/dj/public/24_01/lusted_nowell_3dj_01_2401.pdf)
Move to adopt: 400GBASE-DR2, 800GBASE-DR4, 1.6TBASE-DR8, 800GBASE-FR4-500
CRU text per ghiasi_3dj_01a_2403 page 11 with 4 MHz CRU for all backplane and Cu cable PMDs
CRU text per ghiasi_3dj_01a_2403 page 13 with 4 MHz CRU for 200GBASE-FR1,
400GBASE-DR2-2, 800GBASE-DR4-2, 1.6TBASE-DR8-2, 800GBASE-FR4, 800GBASELR4

