

Motions and Straw Polls

IEEE P802.3ch Multi-Gig Automotive Ethernet Task Force

Steve Carlson, Chair

High Speed Design, Inc., Robert Bosch, Marvell

Bangkok, Thailand November 13&14, 2018

Motion #1

- **Move to approve the agenda as shown in agenda_3ch_1_0818.pdf**
- **M: Duane Remein**
- **S: Tom Souvignier**
- **Approved by voice without opposition (Procedural > 50%)**
- **Motion Passes**

Motion #2

- **Move to approve the minutes of the September 2018 IEEE P802.3ch Multi-Gigabit Automotive Ethernet PHY Task Force Meeting.**
- **M: Duane Remein**
- **S: Tom Souvignier**
- **Approved by voice without opposition (Procedural > 50%)**
- **Motion Passes**

Motion #3

- **Move to confirm minutes for ad hocs on 9/19, 10/3, 10/17 and 10/31/18 as posted.**
- **M: Claude Gauthier**
- **S: William Lo**
- **Approved by voice without opposition (Procedural > 50%)**
- **Motion Passes**

Motion #4

- **Move to accept the 33-bit scrambler polynomials and generator function as shown on slide 3 of `souvignier_3ch_05b_1118.pdf` as the master and slave scramblers for PAM2 training, PAM4 training, and PAM4 data modes.**
- **M: Tom Souvignier**
- **S: Brett McClellan**

- **Everyone in the room**
- **Y: 28 N: 0 A: 4**

- **802.3 voters only**
- **Y: 16 N: 0 A: 2**

- **Motion passes (Technical $\geq 75\%$).**

Motion #5

- **Move to adopt the LPI parameters as shown on slide 2 of `souvignier_3ch_01b_1118.pdf`, excluding specific alert type, as baseline EEE.**
- **M: Tom Souvignier**
- **S: Saied Benyamin**

- **Everyone in the room**
- **Y: 26 N: 0 A: 9**

- **Motion passes (Technical $\geq 75\%$).**

Motion #6

- **Move to adopt the transmit PSD masks as shown on slide 7 of `souvignier_3ch_04a_1118.pdf` as the upper and lower masks for 2.5G, 5G, and 10G data rates and the upper limit of 3dBm max transmit power.**
- **M: Tom Souvignier**
- **S: Gerrit den Besten**
- **Everyone in the room**
- **Y: 28 N: 2 A: 8**
- **Motion Passes (Technical $\geq 75\%$).**

Motion #7

- **Move to adopt baseline text changes shown on slides 3 to 14 of bhagwat_3ch_01a_1118.pdf with editorial license to synchronize changes with P802.3cg.**
- **M: Olaf Grau**
- **S: Christoph Wechsler**
- **Everyone in the room**
- **Y: 32 N: 0 A: 4**
- **Motion passes (Technical $\geq 75\%$).**

Motion #8

- **Move to adopt MDI Return Loss Mask defined on slide 15 of bhagwat_3ch_01a_1118.pdf.**
- **M: Olaf Grau**
- **S: Christoph Wechsler**
- **Everyone in the room**
- **Y: 23 N: 0 A: 11**
- **Motion passes (Technical $\geq 75\%$).**

Motion #9

- **Move to adopt OAM Extension Proposal on slides 4, 6, 7 and 8 of Lo_3ch_01a_1118.pdf, except on Slide 4, change bit D9 for symbols 0 to 13 from “0” to “reserved” with a note saying the reserved bits are set as 0.**
- **M: William Lo**
- **S: Saied Benyamin**

- **Everyone in the room**
- **Y: 23 N: 0 A: 16**

- **Motion passes (Technical $\geq 75\%$).**

Motion #10

- **Move to adopt definition of OAM Status bytes 10-13 as specified on slides 2, 3 and 4 of [wienckowski_3ch_01b_1118.pdf](#) except, change bit D9 for symbols 10 to 13 from “0” to “reserved”.**
- **M: Christoph Wechsler**
- **S: Sujan Pandey**
- **Everyone in the room**
- **Y: 24 N: 0 A: 13**
- **Motion passes (Technical \geq 75%).**

Motion #11

- **Move to adopt FEC Interleaving combinations as shown on slide 3 of Pandey_3ch_03a_1118.pdf.**
- **M: Sujan Pandey**
- **S: William Lo**
- **Everyone in the room**
- **Y: 32 N: 0 A: 6**
- **Motion passes (Technical $\geq 75\%$).**

Motion #12

- **Move to adopt the PHY control state diagrams as shown in souvigner_3ch_03a_1118.pdf slides 8 and 9 with the following changes:**
 - **slide 8 accept DISABLE TRANSMITTER and INIT_MAXWAIT_TIMER and all the arcs in and out of the states and ignore the remainder of the diagram**
 - **slide 9 delete the precoder_en <= true from the TX_SWITCH state.**
 - **The states on slide 9 replace the equivalent states on slide 8.**
- **M: Tom Souvignier**
- **S: William Lo**
- **Y: 22 N: 0 A: 11**
- **Motion passes (Technical >= 75%).**

Motion #13

- **Move to adopt link segment frequency range limits from 1MHz to baudrate/2^{1/2} for both IL and RL (Fmax=1,2,4GHz for 2^{1/2},5,10 Gbps)**
- **M: Gerrit den Besten**
- **S: Josef Ohni**

- **Everyone in the room**
- **Y: 29 N: 0 A: 4**

- **Motion passes (Technical >= 75%).**
- **1:45 pm**

Motion #14

- **Move to adopt 2 MHz to Fmax frequency range limits for each speed grade for link delay.**
- **M: Gerrit den Besten**
- **S: Ricky Vernickel**
- **Everyone in the room**
- **Y: 24 N: 0 A: 8**
- **Motion passes (Technical $\geq 75\%$).**
- **1:48 pm**

Motion #15

- **Move to adopt 1 MHz to Fmax frequency range limits for MDI Return loss for each speed grade.**
- **M: Gerrit den Besten**
- **S: Thomas Müller**
- **Everyone in the room**
- **Y: 26 N: 0 A: 6**
- **Motion passes (Technical $\geq 75\%$).**
- **1:52 pm**

Motion #16

- **Move to adopt a shielding attenuation requirement for 2½/5/10Gbps of $\geq 45\text{dB}$ for $f=30\text{MHz}-F_{\text{max}}$**
- **M: Gerrit den Besten**
- **S: Thomas Müller**

- **Everyone in the room**
- **Y: 26 N: 2 A: 4**

- **Motion passes (Technical $\geq 75\%$).**
- **1:54 pm**

Motion #17

- **Move to adopt the Insertion Loss limit for all speed grades:**

$$IL \leq 0.68 \cdot f^{0.45} + 0.002 \cdot f \text{ [dB]}$$

- **M: Gerrit den Besten**
- **S: Ricky Vernickel**

- **Everyone in the room**
- **Y: 21 N: 0 A: 11**

- **Motion passes (Technical \geq 75%).**
- **2:15 pm**

Motion #18

- **Move to adopt Return Loss limit for 2½Gbps operation to:**
$$\begin{cases} 20dB & f = 1 - 240MHz \\ 20 - 10\log\left(\frac{f}{240}\right)dB & f = 240 - 1000MHz \end{cases}$$
- **M: Gerrit den Besten**
- **S: Josef Ohni**
- **Everyone in the room**
- **Y: 23 N: 0 A: 10**
- **Motion passes (Technical >= 75%).**
- **2:23 pm**

Motion #19

- **Move to adopt Return Loss limit for 5Gbps operation.**

$$\begin{cases} IL @ 1.5GHz \leq 15dB & \rightarrow N = 1 \\ IL @ 1.5GHz > 15dB & \rightarrow N = 0 \end{cases}$$

$$RL \leq \begin{cases} 20dB & \text{for } f = 1 - 480 / 2^N \text{ MHz} \\ 20 - 10 \log \left(\frac{2^N \cdot f}{480} \right) dB & \text{for } f = 480 / 2^N - 2000 \text{ MHz} \end{cases}$$

- **M: Gerrit den Besten**
- **S: Thomas Müller**
- **Everyone in the room**
- **Y: 24 N: 0 A: 5**
- **Motion passes (Technical >= 75%).**
- **2:24 pm**

Motion #20

- **Move to adopt Return Loss limit for 10Gbps operation.**

$$\begin{cases} IL @ 3GHz \leq 15dB & \rightarrow N = 1 \\ IL @ 3GHz > 15dB & \rightarrow N = 0 \end{cases}$$
$$RL \leq \begin{cases} 20dB & \text{for } f = 1 - 480 / 2^N \text{ MHz} \\ 20 - 10 \log \left(\frac{2^N \cdot f}{480} \right) dB & \text{for } f = 480 / 2^N - 3000 \text{ MHz} \\ 12 - 3N \text{ dB} & \cdot f = 3 - 4 \text{ GHz} \end{cases}$$

- **M: Gerrit den Besten**
- **S: Ricky Vernickel**
- **Everyone in the room**
- **Y: 26 N: 0 A: 8**
- **Motion (Technical >= 75%).**
- **2:31 pm**

Motion #21

- **Move to adopt the Clause 45 registers and text in `zimmerman_3ch_02_110218.pdf` with editorial license to add OAM registers as approved in other motions.**
- **M: Brett McClellan**
- **S: Olaf Grau**
- **Everyone in the room**
- **Y: 22 N: 0 A: 10**
- **Motion passes (Technical $\geq 75\%$).**
- **3:07 pm**

Motion #22

- **Move to adopt test mode 3 as defined on slides 8 & 9 of zimmerman_langner_3ch_01_1118.pdf .**
- **M: Conrad Zerna**
- **S: Olaf Grau**
- **Everyone in the room**
- **Y: 17 N: 2 A: 12**
- **Motion passes (Technical $\geq 75\%$).**
- **3:09 pm**

Motion #23

- **Move to instruct the Chief Editor to create D1.0 from D0.6 from closed comments received on D0.6 and adopted baselines from passed motions.**
- **M: Brett McClellan**
- **S: Sujan Pandey**
- **Y: 28 N: 0 A: 2**
- **Motion passes (Technical \geq 75%)**
- **3:11 pm**

Motion #24

- **Move to adjourn the meeting.**
 - **M: Sujan Pandey**
 - **S: Helge Zinner**
 - **Approved by voice without opposition**
- Motion Passes**

Straw Polls

Straw Poll #1

Attendance:

- Attend January 2019 interim, Aruba, Long Beach, CA, USA:
- Y: 16 N: 12 M: 12
- Attend March 2019 802 Vancouver, BC, Canada plenary:
- Y: 15 N: 6 M: 17
- Room count:

Strawpoll #2

Remote Register Access.

For the purpose of:

- In field debug
- Debug where MDIO access is not available to link partner
- Debug where the link partner (possibly upper layer) seems to be non-responsive, but link is up
- With the following conditions
 - Monitor (rather than read) the bits, does not affect latching/clear on read registers
 - No write functionality
 - Provide a means to disable (i.e. to optionally turn off in production)
 - Response allows “refusal” to return value

Strawpoll #2

- **Remote Register Access.**
- **Would you support the Remote Register Access shown on slide 22?**

- **Y: 6 N: 13**

Thank You!