Cl **45** *SC* **45.2.1.185.2** *P* **34** *L* **28** # 1
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Modify Editor Instruction based on 802.3cg change

SuggestedRemedy

Change Editor Instruction to: Insert the following text after the fifth sentence of 45.2.1.185.2 (as modified by 802.3cg) as follows:

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Editor to update Editor Instruction based on P802.3cg D2p1.

Cl **Intro** *SC* **Intro** *P* **12** *L* # 2
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

SuggestedRemedy

Remove all empy pages throughout document

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **149** *SC* **149.1.2** *P* **50** *L* **20** # 3
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *EZ*

The MDI is not part of the PHY and should not be shaded in Figure 149-1.

SuggestedRemedy

Remove shading on MDI "box" in Figure 149-1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** *SC* **150.1.2** *P* **98** *L* **25** # 4
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *EZ*

The MDI is not part of the PHY and should not be shaded in Figure 150-1.

SuggestedRemedy

Remove shading on MDI "box" in Figure 150-1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **Intro** *SC* **Intro** *P* **9** *L* **4** # 5
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Duplicate of Amendment:

SuggestedRemedy

Remove second Amendment:

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: Amendment: Amendment: Physical Layer Specifications

To: Amendment: Physical Layer Specifications

Cl **45** *SC* **45.2.1.185** *P* **34** *L* **17** # 6
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Missing space

SuggestedRemedy

Change: 0 1 00
To: 0 1 0 0

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **125** *SC* **125.1.3** *P* **44** *L* **48** # 7
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Missing space

SuggestedRemedy

Change: PAM4for
To: PAM4 for

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **78** *SC* **78** *P* **37** *L* # 8
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Page forced to 21

SuggestedRemedy

Change to use next available page number.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **149** *SC* **149.1.2** *P* **50** *L* **2** # 9
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Missing period at end of sentence.

SuggestedRemedy

Add missing period.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** *SC* **150.1.3** *P* **98** *L* **1** # 10
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

noun/verb agreement

SuggestedRemedy

Change: The 5GBASE-T1 and 10GBASE-T1 PHYs utilizes four level
To: The 5GBASE-T1 and 10GBASE-T1 PHYs utilize four level

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** *SC* **150.1.3** *P* **99** *L* **14** # 11
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

broken link

SuggestedRemedy

Change: text 150.1
To: Link to 150.4

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** *SC* **150.2** *P* **100** *L* **2** # 12
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

broken link

SuggestedRemedy

Change: text 150.1
To: Link to 150.2.2

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **149** SC **149.2.2.1** P **58** L **25** # 13
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*
missing periods

SuggestedRemedy
Add periods at end of OK and NOT_OK statements

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **150** SC **150.2.2.1** P **106** L **25** # 14
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*
missing periods

SuggestedRemedy
Add periods at end of OK and NOT_OK statements

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **150** SC **150.4.1** P **116** L **27** # 15
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*
broken link

SuggestedRemedy
Change: text 150.1
To: Link to 150.2.2

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **149** SC **149.4.2.1** P **70** L **1** # 16
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*
typo

SuggestedRemedy
Change: stat). To state.

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **150** SC **150.4.2.1** P **118** L **1** # 17
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*
typo

SuggestedRemedy
Change: stat). To state.

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **149** SC **149.4.2.2** P **70** L **15** # 18
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*
broken link

SuggestedRemedy
Change: text 149.1
To: Link to 149.5

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **150** SC **150.4.2.2** P **118** L **15** # 19
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*
broken link

SuggestedRemedy
Change: text 150.1
To: Link to 150.5

Proposed Response *Response Status* **W**
PROPOSED ACCEPT.

Cl **149** *SC* **149.4.4.1** *P* **81** *L* **25** # 20
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

missing periods

SuggestedRemedy

Add periods at end of SEND_N, SEND_I, SEND_T, SEND_Z statements

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** *SC* **150.4.4.1** *P* **129** *L* **25** # 21
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

missing periods

SuggestedRemedy

Add periods at end of SEND_N, SEND_I, SEND_T, SEND_Z statements

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **149** *SC* **149.5.1** *P* **84** *L* **37** # 22
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *PMA*

The PMA electrical specification tests for Multi-Gig are the same as they are for slower speeds as specific frequencies are not specified.

SuggestedRemedy

Accept the text in clause 149.5.1 and its subclauses, e.g. remove yellow highlighting.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

IEC specs only go to 1 GHZ. We are checking to see if there is any standard we can refer to that goes to a higher frequency. NOTE: The CISPR 25 test referred to in 149.9.2.2 does include RE for GPS and GLONASS bands.

Cl **150** *SC* **150.5.1** *P* **132** *L* **37** # 23
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *PMA*

The PMA electrical specification tests for Multi-Gig are the same as they are for slower speeds as specific frequencies are not specified.

SuggestedRemedy

Accept the text in clause 150.5.1 and its subclauses, e.g. remove yellow highlighting.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

IEC specs only go to 1 GHZ. We are checking to see if there is any standard we can refer to that goes to a higher frequency. NOTE: The CISPR 25 test referred to in 149.9.2.2 does include RE for GPS and GLONASS bands.

Cl **149** *SC* **149.5.2.2** *P* **87** *L* **15** # 24
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *Editorial*

Figure 149-13 was not drawn in Frame

SuggestedRemedy

Redraw Figure 149-13 in Frame.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

TX_TCLK is In yellow highlight. In Clause 97 this was TX_TCLK125. Should the clock speed be included or should it be more generic?

Cl **150** *SC* **150.5.2.2** *P* **135** *L* **15** # 25
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *Editorial*

Figure 150-13 was not drawn in Frame

SuggestedRemedy

Redraw Figure 150-13 in Frame.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
TX_TCLK is In yellow highlight. In Clause 97 this was TX_TCLK125. Should the clock speed be included or should it be more generic?

Cl **149** *SC* **149.5.3.5** *P* **88** *L* **21** # 26
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *PMA*

Set peak differential output tolerance to 30%.

SuggestedRemedy

Change: transmit differential signal at MDI shall be less than 1 +TBD V peak-to-peak
To: transmit differential signal at MDI shall be less than 1.3 V peak-to-peak

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: transmit differential signal at MDI shall be less than 1 +TBD V peak-to-peak.

To: transmit differential signal at MDI shall be less than 1.1 V peak-to-peak.

Cl **150** *SC* **150.5.4.5** *P* **136** *L* **21** # 27
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *PMA*

Set peak differential output tolerance to 30%.

SuggestedRemedy

Change: transmit differential signal at MDI shall be less than 1 +TBD V peak-to-peak
To: transmit differential signal at MDI shall be less than 1.3 V peak-to-peak

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: transmit differential signal at MDI shall be less than 1 +TBD V peak-to-peak

To: transmit differential signal at MDI shall be less than 1.1 V peak-to-peak.

Cl **150** *SC* **150.5.3** *P* **135** *L* **51** # 28
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Duplicate clause heading: Test Modes

SuggestedRemedy

Remove duplicate clause heading 150.5.3 Test Modes

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **149** *SC* **149.5.3.6** *P* **88** *L* **27** # 29
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *PMA*

Set the symbol transmission rate tolerance to 50 ppm.

SuggestedRemedy

Remove yellow highlighting on 50 ppm.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** *SC* **150.5.4.6** *P* **136** *L* **27** # 30
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *PMA*

Set the short-term rate of frequency variation to 0.1 ppm/second.

SuggestedRemedy

Remove yellow highlighting on 50 ppm.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

This is actually the symbol transmission rate tolerance.

Remove yellow highlighting on 50 ppm in lines 28 and 31.

Cl **149** *SC* **149.5.3.6** *P* **88** *L* **30** # 31
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *PMA*

Set the short-term rate of frequency variation to 0.1 ppm/second.

SuggestedRemedy

Remove yellow highlighting on 0.1 ppm/second.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** SC **150.5.4.6** P **136** L **30** # 32
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *PMA*

Set the short-term rate of frequency variation to 0.1 ppm/second.

SuggestedRemedy

Remove yellow highlighting on 0.1 ppm/second.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

This actually Line 34.

Cl **149** SC **149.7.1.1** P **90** L **34** # 33
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *EZ*

IL frequency axis should start at 0

SuggestedRemedy

Change Fequency axis to be 0 to 3000.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** SC **150.7.1.1** P **138** L **33** # 34
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *EZ*

IL frequency axis should start at 0

SuggestedRemedy

Change Fequency axis to be 0 to 3000.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **149** SC **149.7.1.5** P **92** L **31** # 35
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *Link Segment*

Set maximum link segment propagation delay to 94 ns as the maximum segment length is the same as bp. This is a propagation delay of 6.27 ns/m. Most cable used for this purpose is about 5.5 ns/m.

SuggestedRemedy

Remove yellow highlighting on 94 ns.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** SC **150.7.1.5** P **140** L **27** # 36
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *Link Segment*

Set maximum link segment propagation delay to 94 ns as the maximum segment length is the same as bp. This is a propagation delay of 6.27 ns/m. Most cable used for this purpose is about 5.5 ns/m.

SuggestedRemedy

Remove yellow highlighting on 94 ns.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **149** SC **149.7.1.5** P **92** L **32** # 37
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *Link Segment*

Set maximum frequency for link segment propagation delay to 3000 MHz.

SuggestedRemedy

Remove yellow highlighting on 3000 MHz.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** *SC* **150.7.1.5** *P* **140** *L* **28** # 38
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *Link Segment*

Set maximum frequency for link segment propagation delay to 3000 MHz.

SuggestedRemedy

Remove yellow highlighting on 3000 MHz.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **149** *SC* **149.8.1** *P* **92** *L* **39** # 39
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *MDI*

This spec should not define a specific MDI connector.

SuggestedRemedy

Remove yellow highlighting on: Further
specification of the mechanical interface is beyond the scope of this standard.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** *SC* **150.8.1** *P* **140** *L* **35** # 40
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *MDI*

This spec should not define a specific MDI connector.

SuggestedRemedy

Remove yellow highlighting on: Further
specification of the mechanical interface is beyond the scope of this standard.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **149** *SC* **149.8.3** *P* **92** *L* **53** # 41
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *Fault Tolerance*

The automotive fault tolerance is the same for all communication speeds..

SuggestedRemedy

Remove yellow highlighting on: See 96.8.3.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **150** *SC* **150.8.3** *P* **140** *L* **49** # 42
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *Fault Tolerance*

The automotive fault tolerance is the same for all communication speeds..

SuggestedRemedy

Remove yellow highlighting on: See 96.8.3.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **44** *SC* **44.3** *P* **32** *L* **8** # 43
Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

broken link

SuggestedRemedy

Change: text 150.1
To: Link to 150.10

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **98B** *SC* **98B** *P* **145** *L* **16** # 44
Wienckowski, Natalie General Motors

Comment Type **T** *Comment Status* **D** *Registers*

Change bit assignments in ch and cg to remove interleaved reserved bits and plan for future PHYs.

SuggestedRemedy

Change 2.5GBASE-T1 ability to A3 from A7
Change 5GBASE-T1 ability to A4 from A8
Change 10GBASE-T1 ability to A5 from A9

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

See wienckowski_3ch_02_0918.pdf for rationale.

Cl **125** *SC* **1.4** *P* **45** *L* **15** # 45
Wu, Mau-Lin MediaTek

Comment Type **T** *Comment Status* **D** *EZ*

In Table 125-1, the ""Description"" of 2.5GBASE-T1 is ""TBD modulation"". It's not correct!

SuggestedRemedy

The team had adopted PAM4 as the modulation of 2.5GBASE-T1 and 5GBASE-T1. Shall modify ""TBD modulation"" into ""PAM4 modulation"".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **125** *SC* **1.4** *P* **45** *L* **22** # 46
Wu, Mau-Lin MediaTek

Comment Type **T** *Comment Status* **D** *EZ*

In Table 125-1, the ""Description"" of 5GBASE-T1 is ""TBD modulation"". It's not correct!

SuggestedRemedy

The team had adopted PAM4 as the modulation of 2.5GBASE-T1 and 5GBASE-T1. Shall modify ""TBD modulation"" into ""PAM4 modulation"".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **125** *SC* **125.1.4** *P* **45** *L* **48** # 47
WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *EZ*

EEE is optinal for 2.5GBASE-T1

SuggestedRemedy

Marked as "O"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add "O" with underlining in cell (EEE, 2.5GBASE-T1)

Cl **125** *SC* **125.1.4** *P* **45** *L* **53** # 48
WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *EZ*

EEE is optinal for 5GBASE-T1

SuggestedRemedy

Marked as "O"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add "O" with underlining in cell (EEE, 5GBASE-T1)

Cl **149** *SC* **149.4.2.6** *P* **76** *L* **2** # 49
WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *Link Sync*

SEND_S signaling modification

SuggestedRemedy

see attached contrtibution "Wu_3ch_01a_0918.pdf"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Make change as defined in Wu_3ch_01a_0918.pdf, Slide 4, bullet 2.

Cl **150** *SC* **150.4.2.6** *P* **124** *L* **2** # 50
WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *Link Sync*
SEND_S signaling modification

SuggestedRemedy
see attached contribution "Wu_3ch_01a_0918.pdf"

Proposed Response *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Make change as defined in Wu_3ch_01a_0918.pdf, Slide 4, bullet 3.

Cl **149** *SC* **149.4.2.6.2** *P* **77** *L* **40** # 51
WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *Link Sync*
send_s_timer expiration changed to "1.25us±0.05us"

SuggestedRemedy
see attached contrtibution "Wu_3ch_01a_0918.pdf"

Proposed Response *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Make change as defined in Wu_3ch_01a_0918.pdf, Slide 4, bullet 4, subbullet 1.

Cl **149** *SC* **149.4.2.6.2** *P* **77** *L* **44** # 52
WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *Link Sync*
sigdet_wait_timerexpiration changed to" 5.0us±0.15us"

SuggestedRemedy
see attached contrtibution "Wu_3ch_01a_0918.pdf"

Proposed Response *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Make change as defined in Wu_3ch_01a_0918.pdf, Slide 4, bullet 4, subbullet 2.

Cl **150** *SC* **150.4.2.6.2** *P* **125** *L* **40** # 53
WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *Link Sync*
send_s_timer expiration changed to "1.25us±0.05us"

SuggestedRemedy
see attached contrtibution "Wu_3ch_01a_0918.pdf"

Proposed Response *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Make change as defined in Wu_3ch_01a_0918.pdf, Slide 4, bullet 4, subbullet 1.

Cl **150** *SC* **150.4.2.6.2** *P* **125** *L* **44** # 54
WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *Link Sync*
sigdet_wait_timerexpiration changed to" 5.0us±0.15us"

SuggestedRemedy
see attached contrtibution "Wu_3ch_01a_0918.pdf"

Proposed Response *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

Make change as defined in Wu_3ch_01a_0918.pdf, Slide 4, bullet 4, subbullet 2.

Cl **149** *SC* **149.4.2.6** *P* **75** *L* **27** # 55
WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *Link Sync*
SEND_S signaling modification - 703.125MHz

SuggestedRemedy
see attached contrtibution "Wu_3ch_01a_0918.pdf"

Proposed Response *Response Status* **W**
PROPOSED ACCEPT IN PRINCIPLE.

In section 149.4.2.6, insert a paragraph between the 2nd and 3rd paragraphs with the text:
The frequency of the SEND_S signal shall be 703.125MHz.

Cl **150** *SC* **150.4.2.6** *P* **123** *L* **27** # 56

WU, Peter Marvell

Comment Type **T** *Comment Status* **D** *Link Sync*

SEND_S signaling modification- - 703.125MHz

SuggestedRemedy

see attached contribution "Wu_3ch_01a_0918.pdf"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In section 150.4.2.6, insert a paragraph between the 2nd and 3rd paragraphs with the text:
The frequency of the SEND_S signal shall be 703.125MHz.