al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

C/ 44 SC 44.1.3	P <b>27</b>	L <b>48</b>	# 6		C/ <b>45</b>	SC 45.2.1.1	94.1	P 36	L <b>52</b>	# <u>2</u> 9	
Vienckowski, Natalie	General Motor	S			Lo, William			Axonne Inc.			
	omment Status D			ΕZ	Comment 7	уре Т	Comme	nt Status D			Register
Missing Abreviation expansion	'n				Clarify	hat is it the red	ceiver and no	ot the transmitter t	hat is being co	nfigured.	
SuggestedRemedy					Suggestedl	Remedy					
Add MAC = MEDIA ACCESS	CONTROL				Change						
Proposed Response Res	sponse Status W				Reed-S To:	olomon interle	ave setting				
PROPOSED ACCEPT IN PR	INCIPLE.					olomon receiv	er interleave	setting			
MAC doesn't need expanding editorial license to clean up t	he figure, remove the flo				Proposed F PROP(	esponse SED ACCEP	,	e Status W			
make labels consistent with e	-				C/ <b>45</b>	SC 45.2.1.1	94.2	P 37	L <b>29</b>	# 33	
C/ 44 SC 44.1.3	P <b>27</b>	L <b>50</b>	# 7		Lo, William			Axonne Inc.			
/ienckowski, Natalie	General Motor	S			Comment 1	ype <b>T</b>	Comme	nt Status D			Registe
· · · )/·· =	omment Status D			ΕZ		it user field do	es not exist.				U
Incorrect font						a holdover from			turned in 1000		
SuggestedRemedy								oits 7 to 1 were no r interleave and pr		BASE-11	
Change: AUTO-NEGOTIATI	ON IS OPTIONAL to the	e same font as t	he rest of the text.		Suggestedl			·			
Proposed Response Res	sponse Status 🛛 🛛 🛛 🛛 🛛 🖉				00		scription what	at to do and editor	has editorial lic	cense to make	other
PROPOSED ACCEPT IN PF	INCIPLE.				change	s to make the	text consiste	nt.			
Changes Notes to NOTE sty	le here and anvwhere e	lse needed in th	e Figures.			e register 1.23		.2311.5:4. Search	h the documen	t to make	
		L10			2) 1.23	11.8:6 is the 3-	bit user defi	ned field			
ç ,			# 1		3) 1.23	11.15:9 is Res	erved				
C/ 45 SC 45.2.1.192	P <b>34</b>		"		1) Und	to table 15-15	5c to match	and any other title	e/headinge		
C/ 45 SC 45.2.1.192 Vienckowski, Natalie	General Motor		"		5) Chai	ige the 3 reser	ved bits in T	and any other title able 149-10 (page	e 138) to User [	Defined Field	
C/ <b>45</b> SC <b>45.2.1.192</b> Vienckowski, Natalie Comment Type <b>E</b> Co	General Motor	ſS		ΕZ	5) Chai	ige the 3 reser	ved bits in T		e 138) to User [	Defined Field	
Cl <b>45</b> SC <b>45.2.1.192</b> Vienckowski, Natalie Comment Type <b>E</b> Co Inconsistent text - it is not ne	General Motor	ſS		EZ	5) Chai	ige the 3 reser uld be a single	ved bits in T box and not	able 149-10 (page	e 138) to User [	Defined Field	
Cl <b>45</b> SC <b>45.2.1.192</b> Vienckowski, Natalie Comment Type <b>E</b> Co Inconsistent text - it is not ne SuggestedRemedy	General Motor omment Status D cessary to say "writes iç	ſS		EZ	5) Chai It shc Proposed F	ige the 3 reser uld be a single	ved bits in T box and not <i>Respons</i>	able 149-10 (page t 3 separate boxes e Status <b>W</b>	e 138) to User [	Defined Field	
Cl <b>45</b> SC <b>45.2.1.192</b> Vienckowski, Natalie Comment Type <b>E</b> Co Inconsistent text - it is not ne SuggestedRemedy Change: Value always 0, wr	General Motor omment Status D cessary to say "writes iç	ſS		EZ	5) Chai It sho Proposed F PROPO	nge the 3 reser uld be a single Response	ved bits in T box and not <i>Respons</i>	able 149-10 (page t 3 separate boxes e Status <b>W</b>	e 138) to User [	Defined Field	
Cl <b>45</b> SC <b>45.2.1.192</b> Wienckowski, Natalie Comment Type <b>E</b> Co Inconsistent text - it is not ne SuggestedRemedy Change: Value always 0, wr To: Value always 0	General Motor omment Status D cessary to say "writes iç	ſS		EZ	5) Chai It shc Proposed F PROPO For 1.2 Change	nge the 3 reser uld be a single <i>Response</i> DSED ACCEP <sup></sup> 311.10:4 :: "User field" to	ved bits in T box and not <i>Respons</i> I IN PRINCI o "Reserved"	able 149-10 (page t 3 separate boxes <i>e Status</i> <b>W</b> PLE.	e 138) to Üser [ s.		

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al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

CI <b>45</b>	SC 45.2.1.194	4.3	P 37	L 35	#	30	C/ <b>45</b>	SC 45.2.1.	195.2	P 38	L <b>39</b>	#	34
.o, William			Axonne Inc.				Lo, William			Axonne Inc.			
	that is it the rece		Status <b>D</b> the transmitter th	nat is being cor	nfigured.	Registers	This is	bit user field d a holdover fro	oes not exist. m 1000BASE	E-T1.			Registe
uggestedi Change precode	-	sted by					but 4 c	of the 7 bits are		bits 7 to 1 were nor or interleave and p		BASE-T1	
To:	er precoder settin	2					Suggested This is	-	escription wh	at to do and edito	r has editorial lic	cense to n	ake other
Proposed F PROP( The red	Response DSED REJECT. ceiver doesn't ha	Response	er. The receive			The device	change 1) Mov the r 2) 1.23 3) 1.23	es to make the re register 1.23 egister move of 312.8:6 is the 3 312.15:9 is Re	e text consiste 312.12:11 to consistent. 3-bit user defi served	ent. 1.2312.5:4. Seard ned field from the	ch the documen		
7 45	SC 45.2.1.19		P <b>38</b>	L 35		31	4) Upd Proposed I			and any other titl se S <i>tatus</i> <b>W</b>	es/neadings.		
							PROP	OSED ACCER	PT IN PRINCI	PLE.			
o William			Axonne Inc										
Comment T	Гуре Т		Axonne Inc. Status <b>D</b> not the receiver th	nat is being cor	nfigured.	Registers	Chang			o "Reserved" and		vave 0"	
Comment 7 Clarify	<i>Type</i> <b>T</b> that is it the tran		Status D	nat is being cor	nfigured.	Registers	Chang Chang	e: "Link partne e: "7-bit user o	lefined field f	rom the link partn	er" to "Value alv	,	
Comment 7 Clarify Clarify Uggestedi Insert a	<i>Type</i> <b>T</b> that is it the tran Remedy	smitter and r	Status D		nfigured.	Registers	Chang Chang Cl <b>45</b>	e: "Link partne e: "7-bit user SC <b>45.2.1.</b>	lefined field f			vays 0". #	32
Comment 7 Clarify Cuggestedi Insert a To:	<i>Type</i> <b>T</b> that is it the tran <i>Remedy</i> after first sentence	smitter and r	Status D not the receiver th	se:		Registers	Chang Chang <i>Cl</i> <b>45</b> Lo, William	e: "Link partne e: "7-bit user SC <b>45.2.1.</b>	defined field fi 195.3	rom the link partn P <b>38</b> Axonne Inc.	er" to "Value alv	,	
Comment T Clarify Suggestedi Insert a To: , and co Proposed F	Type <b>T</b> that is it the tran Remedy after first sentend ontrols the Reed Response	smitter and r ce the followin I-Solomon tra <i>Response</i>	Status <b>D</b> not the receiver the ng clarifying clau nnsmitter interlea	se:		Registers	Chang Chang Cl <b>45</b> Lo, William Comment	e: "Link partne e: "7-bit user SC <b>45.2.1.</b> Type <b>T</b>	lefined field fi 195.3 Comme	rom the link partn	er" to "Value alw L <b>45</b>	#	32 Registe
Suggestedi Insert a To: , and co Proposed F	<i>Type</i> <b>T</b> that is it the tran <i>Remedy</i> after first sentence ontrols the Reed	smitter and r ce the followin I-Solomon tra <i>Response</i>	Status <b>D</b> not the receiver the ng clarifying clau nnsmitter interlea	se:		Registers	Chang Chang Cl 45 Lo, William Comment Clarify Suggested Insert a To:	e: "Link partne e: "7-bit user of <i>SC</i> <b>45.2.1.</b> <i>Type</i> <b>T</b> that is it the the <i>Remedy</i> after first sente	defined field fi 195.3 Comme ansmitter and ence the follo	P 38 Axonne Inc. <i>P</i> 10	er" to "Value alv <i>L</i> 45 that is being con use:	#	
Comment T Clarify Suggestedi Insert a To: , and co Proposed F	Type <b>T</b> that is it the tran Remedy after first sentend ontrols the Reed Response	smitter and r ce the followin I-Solomon tra <i>Response</i>	Status <b>D</b> not the receiver the ng clarifying clau nnsmitter interlea	se:		Registers	Chang Chang Cl <b>45</b> Lo, William Comment Clarify Suggested Insert a To: , and c Proposed I	e: "Link partne e: "7-bit user of SC 45.2.1. Type T that is it the tr Remedy after first sente	defined field fi 195.3 Comme ansmitter and ence the follo nsmitter prec <i>Respons</i>	rom the link partn <i>P</i> <b>38</b> Axonne Inc. <i>ent Status</i> <b>D</b> d not the receiver wing clarifying cla	er" to "Value alv <i>L</i> 45 that is being con use:	#	

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CI <b>45</b>	SC 45.2.1.197	P 39	L <b>43</b>	# <u>7</u> 2	CI 98	SC 98	P 56	L <b>1</b>	# 44
den Best	en, Gerrit	NXP Semicor	nductors		LEE, JUH	0	Hanyang Univ	versity and Hyur	ndai Motor Company
0x80 comp S <i>uggeste</i>	number is in offse 100." I'm not aware plement" and "offse edRemedy	Comment Status <b>D</b> two's complement notation of a format called 'offset two t binary". From the context set two's complement" with '	's complement t is clear that th	. I know "two's	should increa cause this de	atest asymmetric d be used for lov ase, the data tra- a buffer overflo elay time, PHY o	Comment Status <b>D</b> c transmission proposals have w speed transmission. 2. Ever ffic should be transmitted only www. 3. There is a delay time wh can not cover the traffic comin problems can occur.	if data traffic at in a predetermi ien sleep mode	low speed have to ned period. This may is switched on. During
,	d Response POSED ACCEPT.	Response Status W				ould like to sugg	gest a way to use AN(Auto-ne AN is self-configuring to use th		
Commen Edito when Suggeste Delet Proposed PRO	or's note to be remo n WG ballot reques edRemedy te Editor's note. d Response POSED ACCEPT	Response Status W	ove now so it is	U	is pro Mbps the re the up mode inform freque AN to to a s <i>Proposed</i> PROF The c the sp the co	posed, which su ) between end d liability of low-sp plink and downlin . And power sav hation with the M ency of use to do set the asymmetric or asy <i>Response</i> POSED REJECT comment descrip pocific changes for mment does no	between end devices. For asy upports the lowest common link levices. This can reduce the B beed data. In order to add the nk directions at a low speed in ving in some cases while using MAC layer, the MAC measures etermine the trigger for the asy etric uplink / downlink rate. As mmetric transmission, and thi <i>Response Status</i> <b>W</b> T. btion does not contain sufficient requested by the commenter. ot contain sufficient detail so the y the commenter.	k speed (or a sp ER and increase new AN mode, j AN for asymme g AN. Because t the queue char metric transm the queue chan s decision is ma nt detail so that t In addition, the s	hecific link rate like 10 e the energy saving and providing either one of etric data transmission he AN can exchange acteristics and hission and instructs the ges, it can be switched ide entirely by the MAC.
					C/ 104	SC 104.1	P 57	L 8	# 2
					Wienckow	vski, Natalie	General Moto	ors	

Editor's note that is to be removed for D1.2 that is still in the spec.	
SuggestedRemedy	

Comment Status D

ΕZ

Delete Editor's note.

Comment Type E

Proposed Response Response Status W PROPOSED ACCEPT.

al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd T;

Wienckwski, Natalie       General Motors         Comment Type       E         Comment Typ	C/ 125 SC 125.1.2	P 61	L <b>8</b>	# 3		C/ 125	SC 125.3	P 65	L 31	# 8
Move: Replace Figure 125-1 (as modified by IEEE St8 802.3cb-2018) with the figure found below, which adds 25GRASET.1 to be just before Figure 125-1.       Remove highlighting from text in notes a and b below table 125-3.         PROPOSED ACCEPT.       PROPOSED ACCEPT.         C1 125 SC 125.1.2       P62       L44       #         Missing Abreviation expansion       Suggested/Remedy         Add PMA = PHYSICAL MEDIUM ATTACHMENT       Froposed Response       Response Status W         PROPOSED ACCEPT.       C1 125 SC 125.1.2       P62       L46       #         Vienckowski, Natalie       General Motors       Comment Status D       EZ         Missing Abreviation expansion       Suggested/Remedy       Change from: "PHY advertises its MultiGBASE-T1 OAM capability as described in 149.4.2.4.5         Vienckowski, Natalie       General Motors       Ci 125 SC 125.1.2       P62       L46       \$         Vienckowski, Natalie       General Motors       Ci 126 SC 125.1.2       P62       L46       \$         Vienckowski, Natalie       General Motors       Ci 149 SC 149.1.3       P68       L10       #         Suggested/Remedy       Add XOMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE       To "PHY advertises its MultiGBASE-T1 OAM capability as described in 149.4.2.4.5         Suggested/Remedy       Add XOMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE       To Comment Type T	Comment Type E	Comment Status D			EZ	Comment 7	Туре Е	Comment Status D		
Cl 125       SC 125.1.2       P62       L44       #	Move: Replace Figure 12 below, which adds 2.5GI Also, move the Figure to Proposed Response	BASE-T1 and 5GBASE-T1. to be after 125.1.3 text.			ound	Remov Proposed F	re highlighting fro Response	Response Status W	w table 125-3.	
Vienckowski, Natalie       General Motors         SuggestedRemedy         Add PMA = PHYSICAL MEDIUM ATTACHMENT         Proposed Response       Response Status         Vienckowski, Natalie       General Motors         Comment Type E       Comment Status D         PROPOSED ACCEPT.       P62       L46         Vienckowski, Natalie       General Motors         Comment Type E       Comment Status D         Vienckowski, Natalie       General Motors         Comment Type E       Comment Status D         Vienckowski, Natalie       General Motors         Comment Type E       Comment Status D         Vienckowski, Natalie       General Motors         SuggestedRemedy       Add XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE         Proposed Response       Response Status         PROPOSED ACCEPT.       L 4M to define the speces for the MDI connector and the transceiv         SuggestedRemedy       Add XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE         Proposed Response       Response Status         PROPOSED ACCEPT.       L 4R tor this module-internal channel part, used to define the spece should be mentioned.         SuggestedRemedy       Add XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE         Proposed Response       Response Status       W	PROPOSED ACCEPT.					C/ 149	SC 149.1.3	P 68	L <b>4</b>	# 47
Missing Abreviation expansion SuggestedRemedy Add PMA = PHYSICAL MEDIUM ATTACHMENT Proposed Response Response Status W PROPOSED ACCEPT. D1 125 SC 125.1.2 P62 L46 # 5 Vienckowski, Natalie General Motors Comment Type E Comment Status D EZ Missing Abreviation expansion SuggestedRemedy Add XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE Proposed Response Response Status W PROPOSED ACCEPT. D2 125 SC 125.1.2 P62 L46 # 5 D3 C 125 SC 125.1.2 P62 L46 # 5 D4 SC 125 SC 125.1.2 P62 L46 # 5 D5 C 125 SC 1	Vienckowski, Natalie	General Motors	L <b>44</b>	# 4	EZ	Comment 7		Comment Status D	9.4.2.4.5	С
Wienckowski, Natalie       General Motors         Comment Type       E       Comment Status       D         Missing Abreviation expansion       Missing Abreviation expansion       EZ       Comment Type       T       Comment Status       D         SuggestedRemedy       Add XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE       Proposed Response       Response Status       W         PROPOSED ACCEPT.       PROPOSED ACCEPT.       EZ       SuggestedRemedy       Suggested Remedy         Proposed Response       Response Status       W       PROPOSED ACCEPT.       Response Status       W         Proposed Response       Response Status       W       Proposed Response       Response Status       W         PROPOSED ACCEPT.       The commenter does not provide any suggested remedy.       The commenter does not provide any suggested remedy.       This has been done as an informative annex which defines test points and loss budge	SuggestedRemedy Add PMA = PHYSICAL I Proposed Response	MEDIUM ATTACHMENT				Change 149.3.8 To: "I Proposed F	e from: "PHY a 3." PHY advertises Response	its MultiGBASE-T1 OAM cap Response Status W		
Comment Type       E       Comment Status       D       EZ       Comment Type       T       Comment Status       D         Missing Abreviation expansion       SuggestedRemedy       Add XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE       In reality there is a piece of the channel between the MDI connector and the transceiv which is not accounted for in link segment IL & RL. Although the IEEE PHY's set many specs for the MDI reference point, which makes a lot of sense, I think it would be used add informative specs for IL and RL for the part of the channel behind the MDI. IMO, to assumptions for IL & RL for this module-internal channel part, used to define the spec should be mentioned.         PROPOSED ACCEPT.       SuggestedRemedy         PROPOSED ACCEPT.       Response         Response Status       W         PROPOSED ACCEPT.       Proposed Response         Response Status       W         PROPOSED ACCEPT.       The commenter does not provide any suggested remedy. This has been done as an informative annex which defines test points and loss budge	7 125 SC 125.1.2	P <b>62</b>	L <b>46</b>	# 5		C/ 149	SC 149.1.3	P 68	L 10	# 83
Missing Abreviation expansion SuggestedRemedy Add XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE Proposed Response Response Status W PROPOSED ACCEPT. INTERFACE Proposed Response Response Status W PROPOSED ACCEPT. INTERFACE Proposed Response Response Status W PROPOSED ACCEPT. INTERFACE In reality there is a piece of the channel between the MDI connector and the transceiv which is not accounted for in link segment IL & RL. Although the IEEE PHY's set manuspecs for the MDI reference point, which makes a lot of sense, I think it would be used add informative specs for IL and RL for the part of the channel behind the MDI. IMO, t assumptions for IL & RL for this module-internal channel part, used to define the spec should be mentioned. SuggestedRemedy Proposed Response Response Status W PROPOSED REJECT. The commenter does not provide any suggested remedy. This has been done as an informative annex which defines test points and loss budget	Vienckowski, Natalie	General Motors				den Besten	, Gerrit	NXP Semicor	nductors	
SuggestedRemedy Proposed Response Response Status W PROPOSED REJECT. The commenter does not provide any suggested remedy. This has been done as an informative annex which defines test points and loss budge	omment Type       E       Comment Status       D       EZ         Missing Abreviation expansion       uggestedRemedy       Add XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE       EZ		EZ	In reali which i specs f add infe assum	ty there is a piec s not accounted for the MDI refer ormative specs ptions for IL & R	ce of the channel between th for in link segment IL & RL. rence point, which makes a la for IL and RL for the part of t	Although the IE ot of sense, I thi he channel behi	EE PHYs set mandate nk it would be useful t nd the MDI. IMO, the		
PROPOSED REJECT. The commenter does not provide any suggested remedy. This has been done as an informative annex which defines test points and loss budge	PROPOSED ACCEPT.					Suggested	Remedy			
This has been done as an informative annex which defines test points and loss budge							•			
The commenter may choose to submit a comment at WG ballot with a proposal to ad Annex, with the suggested content.						This ha some c The co	as been done as of the high-speed mmenter may c	an informative annex which d SERDES specs. hoose to submit a comment	defines test poir	0

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general	al Pa <b>68</b>	Page 4 of 21
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written	C/closed Z/withdrawn Li 10	4/11/2019 2:41:38 PM
SORT ORDER: Page, Line		

al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

Kim, Taehyoung       Hanyang University and Hyundai Motor Company         Comment Type       T       Comment Status       D       E         The LPI mode is a method for implementing EEE. However, when small data is periodical transmitted with a gap, the PHY repeatedly enters and leaves the LPI mode, resulting in energy loss. Also, the refresh signal in LPI mode only maintains a connection between the sender and the receiver, but does not transmit any data. In order to solve this frequent LP transition problem, part of the unused OAM fields can be used to adjust the transmission speed depending on the change of data amount in buffers. If PHY transmit quiet time bloc after the our proposed OAM field, PHY can transmit PAM4 data block with information an operate various speeds. Therefore we propose OAM transmission for various speed transmission.         SuggestedRemedy         Our proposed solution uses the D9 bit field of the previously transmitted OAM frame (figure
The LPI mode is a method for implementing EEE. However, when small data is periodical transmitted with a gap, the PHY repeatedly enters and leaves the LPI mode, resulting in energy loss. Also, the refresh signal in LPI mode only maintains a connection between the sender and the receiver, but does not transmit any data. In order to solve this frequent LP transition problem, part of the unused OAM fields can be used to adjust the transmission speed depending on the change of data amount in buffers. If PHY transmit quiet time bloc after the our proposed OAM field, PHY can transmit PAM4 data block with information an operate various speeds. Therefore we propose OAM transmission for various speed transmission. <i>SuggestedRemedy</i>
transmitted with a gap, the PHY repeatedly enters and leaves the LPI mode, resulting in energy loss. Also, the refresh signal in LPI mode only maintains a connection between the sender and the receiver, but does not transmit any data. In order to solve this frequent LP transition problem, part of the unused OAM fields can be used to adjust the transmission speed depending on the change of data amount in buffers. If PHY transmit quiet time bloc after the our proposed OAM field, PHY can transmit PAM4 data block with information and operate various speeds. Therefore we propose OAM transmission for various speed transmission. SuggestedRemedy
<ul> <li>energy loss. Also, the refresh signal in LPI mode only maintains a connection between the sender and the receiver, but does not transmit any data. In order to solve this frequent LP transition problem, part of the unused OAM fields can be used to adjust the transmission speed depending on the change of data amount in buffers. If PHY transmit quiet time bloc after the our proposed OAM field, PHY can transmit PAM4 data block with information an operate various speeds. Therefore we propose OAM transmission for various speed transmission.</li> <li>SuggestedRemedy</li> </ul>
speed depending on the change of data amount in buffers. If PHY transmit quiet time bloc after the our proposed OAM field, PHY can transmit PAM4 data block with information an operate various speeds. Therefore we propose OAM transmission for various speed transmission. SuggestedRemedy
SuggestedRemedy
Our proposed solution uses the D9 bit field of the previously transmitted OAM frame (figure
149-17) to monitor the buffer accumulated in the PHY and adjust the transmission rate.
When $D9 = 0$ , this defines no change in the amount of data to be transmitted and the PHY
transmits at the same rate at the next data transmission. When D9 = 1, this indicates that
there is a change in the amount of data and that the PHY immediately transmits OAM symbol 0 after parity bit transmission. OAM symbol 0 is determined to configure the link
speed at either 5 Gbps or 2.5 Gbps speed on 10 Gbps link based on the bit combinations
of D4 and D5. 1. $<$ D4, D5> = <0, 0> 10 Gbps 2. $<$ D4, D5> = <0, 1> 5 Gbps 2. $<$ D4, D5> = <1, 1> 5 Gbps
3. <d4, d5=""> = &lt;1, 0&gt; 2.5 Gbps In case of 5 Gbps, the link mode of PHY will be on the guiet time of 64 bits, which is egua</d4,>
in bit length one PAM4 data block. The quiet time is a time period with no data
transmission. In case of 2.5 Gbps, the link mode of PHY will be on the quiet time of 192 (64 x 3) bits,
which is equal to one data block. And the length and frequency of quiet time and PAM4
data blocks are equal for both cases.
Proposed Response Response Status W
PROPOSED REJECT.
The comment description does not contain sufficient detail so that the TF can understand
the specific changes requested by the commenter. In addition, the suggested remedy in the comment does not contain sufficient detail so that the TF can understand the specific
changes requested by the commenter.
í

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	SC 149.1.3	P <b>71</b>	L 12	# 48	C/ 149	SC 149.2.2		P <b>75</b>	L 23	# <u>5</u> 0
Гu, Mike		Broadcom			Tu, Mike		Br	oadcom		
Comment 7	Туре Т	Comment Status D		pcs_data_mode	Comment Ty	rpe T	Comment Star	tus <b>D</b>		pcs_data_mod
In Figur	re 149-2, "pcs_da	ta_mode" is missing			PMA_P0	CSDATAMOE	DE.indication should	d be added		
1. Add and goi 2. If pro	re 149-2: an arrowed line fo ing into the "PCS_ oposal in "tu_3ch_	or "pcs_data_mode", coming _TRANSMIT" block. 02_0419.pdf" to make pcs_ ike this a SOLID line. Othen	_data_mode ava	ilable even without	PCS blo 2. If pcs	e 149-3: n arrowed lin ck. data mode	_	or non-EEE		the PMA block into the hen make this a SOLID
Proposed F	Response	Response Status W			Proposed Re	esponse	Response Stat	us <b>W</b>		
PROPC	OSED ACCEPT IN	N PRINCIPLE.			PROPO	SED ACCEP	T IN PRINCIPLE.			
Final in	nplementation dep	pends on outcome of comme	ents #57 & #58.		Final im	olementation	depends on outcor	ne of comm	ents #57 & #58.	
C/ 149	SC 149.2.2	P <b>74</b>	L <b>22</b>	# 49	C/ 149	SC 149.2.2	.3.1	P <b>76</b>	L 35	# 71
u, Mike		Broadcom			Benyamin, S	aied	Ac	luantia		
Comment 7	Туре Т	Comment Status D		pcs_data_mode	Comment Ty	rpe T	Comment Star	tus <b>D</b>		PN
PMA_F SuggestedF	PCSDATAMODE s	should be added			sequenc	e for Alert is	Note: Not			
"PMA_I 30. Proposed F PROPC	ake "pcs_data_m PCSDATAMODE. Response DSED ACCEPT IN	ode" available even without indication (pcs_data_mode) <i>Response Status</i> <b>W</b> N PRINCIPLE. pends on outcome of comme	)" at line 22. Oth		SuggestedR Change During tr the para tx_symb of the fo	emedy definition of F ansmission, meter the value of llowing values +1/3, +1}	the symbols to be s s: in normal operation when zeros are to	rÀ.request s sent over the n be transmitt ODE.indicati s reached, ti	imultaneously c MDI. The tx_s ed in the followi ion is SEND_Z o he transmit func	wing: conveys to the PMA via ymb may take on one ing two cases: during PMA training, ction is in the
"PMA_I 30. Proposed F PROPC	ake "pcs_data_m PCSDATAMODE. Response DSED ACCEPT IN	indication (pcs_data_mode) <i>Response Status</i> <b>W</b> N PRINCIPLE.	)" at line 22. Oth		SuggestedR Change During to the para tx_symb of the fo {-1, -1/3, 0 and	emedy definition of F ansmission, meter the value of lowing values +1/3, +1}	PMA_UNITDATA.re the PMA_UNITDAT the symbols to be s s: in normal operatio when zeros are to 1)when PMA_TXM 2)after data mode i LPI transmit mod <i>Response Stat</i>	rÀ.request s sent over the be transmitt ODE.indicati s reached, tl e, and lpi_tx	imultaneously c MDI. The tx_s ed in the followi ion is SEND_Z o he transmit func	wing: conveys to the PMA via ymb may take on one ing two cases: during PMA training, ction is in the

al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

C/ 149 SC 149.2.2.3.1 P76 L46 # 14		C/ 149	SC 149.3.2		P 81	L 27	# 52	
Vienckowski, Natalie General Motors		Tu, Mike		В	Broadcom			
Comment Type E Comment Status D	EZ	Comment	Туре Т	Comment Sta	atus <b>D</b>		pcs_da	ta_mode
There is no space between the number and the text.		In Figu	ure 149-4, "pcs_	data_mode" is m	issing			
SuggestedRemedy		Suggested	Remedy					
Add a tab in the paragraph format to space the text over from the number.		0	ure 149-4:	· · • • •				
Proposed Response Response Status W			RANSMIT block		below the "Pl	MA SERVICE I	NTERFACE" into	the
PROPOSED ACCEPT.		2. If po	cs_data_mode is	s made available		mode as well,	then make this a	SOLID
C/ 149 SC 149.2.2.9 P79 L22 # 51				this a DASHED li				
u, Mike Broadcom		Proposed I	•	Response Sta	atus <b>W</b>			
	lata_mode	PROP	OSED ACCEPT	IN PRINCIPLE.				
Insert PMA_PCSDATAMODE.indication before 149.2.2.9	ata_mode	Final ir	mplementation of	depends on outco	ome of comm	nents #57 & #58	8.	
uggestedRemedy		C/ 149	SC 149.3.2.2	2.15	P 89	L 38	# 15	
Before 149.2.2.9, insert the following (based on 55.2.2.11):		Wienckows			General Moto			
5(		VVICIUCKOWS	SKI, INALAIIC	C C		13		
		Comment '	Type <b>F</b>	Comment St	atus D			F
149.2.2.8a PMA_PCSDATAMODE.indication	ion from	Comment <sup>®</sup> Equation	51	Comment Sta	atus D			E
-This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PH		Equation	ion is cut off at to		atus D			E.
–This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PH Control function. It is passed to the PCS Control function via the		Equatio <i>Suggested</i>	ion is cut off at to IRemedy	op.		n		Ež
-This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PH		Equatio <i>Suggested</i> Equatio	ion is cut off at to IRemedy ion 149-1 -> Un	op. wrap then shrink	wrap equatio	on.		E.
<ul> <li>This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PH Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> </ul>		Equation Suggested Equation Proposed I	ion is cut off at to IRemedy ion 149-1 -> Un Response	op. wrap then shrink <i>Response Sta</i>	wrap equatio	on.		EZ
-This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PH Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.		Equation Suggested Equation Proposed I	ion is cut off at to IRemedy ion 149-1 -> Un	op. wrap then shrink <i>Response Sta</i>	wrap equatio	on.		Ez
<ul> <li>This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PH Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> </ul>		Equation Suggested Equation Proposed I	ion is cut off at to IRemedy ion 149-1 -> Un Response	op. wrap then shrink <i>Response Sta</i> F.	wrap equatio	on. <b>L 17</b>	# 40	Ez
<ul> <li>-This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PH Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> <li>-PMA_PCSDATAMODE.indication (pcs_data_mode)</li> <li>-149.2.2.8a.2 When generated</li> <li>-The PMA PHY Control function generates PMA_PCSDATAMODE.indication mes</li> </ul>	łΥ	Equation Suggested Equation Proposed I PROP	IRemedy IRemedy Ion 149-1 -> Un Response IOSED ACCEPT SC 149.3.2.2	op. wrap then shrink <i>Response Sta</i> r. <b>2.18</b>	wrap equatio atus <b>W</b> P <b>93</b>	L 17	# 40 iroup, Aquantia, B	
<ul> <li>-This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PH Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> <li>-PMA_PCSDATAMODE.indication (pcs_data_mode)</li> <li>-149.2.2.8a.2 When generated</li> </ul>	łΥ	Equation Suggested Equation Proposed I PROP CI 149	ion is cut off at to Remedy ion 149-1 -> Un Response OSED ACCEPT SC <b>149.3.2.</b> an, George	op. wrap then shrink <i>Response Sta</i> r. <b>2.18</b>	wrap equatic atus <b>W</b> P <b>93</b> CME Consulti	L 17		MW, Ci
<ul> <li>-This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PF Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> <li>-PMA_PCSDATAMODE.indication (pcs_data_mode)</li> <li>-149.2.2.8a.2 When generated</li> <li>-The PMA PHY Control function generates PMA_PCSDATAMODE.indication mes continuously.</li> <li>-149.2.2.8a.3 Effect of receipt</li> </ul>	ΗΥ ssages	Equation Suggested Equation Proposed I PROP CI 149 Zimmerma Comment	ion is cut off at te <i>Remedy</i> ion 149-1 -> Un <i>Response</i> OSED ACCEPT SC <b>149.3.2.</b> an, George <i>Type</i> <b>T</b> utput symbols th	op. wrap then shrink <i>Response Sta</i> r. <b>2.18</b> <i>Comment Sta</i> ne PMA transmit j	wrap equatic atus <b>W</b> P <b>93</b> CME Consulti atus <b>D</b> process shal	L <b>17</b> ing/ADI, APL G I map" - the gra	roup, Aquantia, B ay mapping is des	MW, Ci PCS cribed
<ul> <li>-This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PF Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> <li>-PMA_PCSDATAMODE.indication (pcs_data_mode)</li> <li>-149.2.2.8a.2 When generated</li> <li>-The PMA PHY Control function generates PMA_PCSDATAMODE.indication mes continuously.</li> <li>-149.2.2.8a.3 Effect of receipt</li> <li>-Upon receipt of this primitive, the PCS performs its transmit function as described</li> </ul>	ΗΥ ssages	Equation Suggested Equation Proposed I PROP CI 149 Zimmerma Comment "For ou as a P	ion is cut off at to <i>Remedy</i> ion 149-1 -> Un <i>Response</i> OSED ACCEPT SC 149.3.2.2 an, George <i>Type</i> <b>T</b> utput symbols th CS function. Al	op. wrap then shrink <i>Response Sta</i> r. <b>2.18</b> <i>Comment Sta</i> ne PMA transmit j so, the selectable	wrap equationatus <b>W</b> <b>P93</b> CME Consultinatus <b>D</b> process shall process shall process shall	L <b>17</b> ing/ADI, APL G I map" - the gra nd PAM4 encod	roup, Aquantia, B ay mapping is des ding both say PM/	MW, Ci PCS cribed A when
<ul> <li>This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PF Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> <li>-PMA_PCSDATAMODE.indication (pcs_data_mode)</li> <li>-149.2.2.8a.2 When generated</li> <li>-The PMA PHY Control function generates PMA_PCSDATAMODE.indication mes continuously.</li> <li>-149.2.2.8a.3 Effect of receipt</li> <li>-Upon receipt of this primitive, the PCS performs its transmit function as described 149.3.2.2.</li> </ul>	ΗΥ ssages	Equation Suggested Equation Proposed I PROP CI 149 Zimmerma Comment "For ou as a P	ion is cut off at te <i>Remedy</i> ion 149-1 -> Un <i>Response</i> OSED ACCEPT SC 149.3.2.2 an, George <i>Type</i> <b>T</b> utput symbols th CS function. All bed as a PCS fu	op. wrap then shrink <i>Response Sta</i> r. <b>2.18</b> <i>Comment Sta</i> ne PMA transmit j so, the selectable	wrap equationatus <b>W</b> <b>P93</b> CME Consultinatus <b>D</b> process shall process shall process shall	L <b>17</b> ing/ADI, APL G I map" - the gra nd PAM4 encod	roup, Aquantia, B ay mapping is des	MW, Ci PCS cribed A when
<ul> <li>This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PF Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> <li>-PMA_PCSDATAMODE.indication (pcs_data_mode)</li> <li>-149.2.2.8a.2 When generated</li> <li>-The PMA PHY Control function generates PMA_PCSDATAMODE.indication mes continuously.</li> <li>-149.2.2.8a.3 Effect of receipt</li> <li>-Upon receipt of this primitive, the PCS performs its transmit function as described 149.3.2.2.</li> <li>Proposed Response Response Response Status W</li> </ul>	ΗΥ ssages	Equation Suggested Equation Proposed I PROP CI 149 Zimmerma Comment "For ou as a Pu describ	ion is cut off at te <i>Remedy</i> ion 149-1 -> Un <i>Response</i> OSED ACCEPT <u>SC</u> 149.3.2.2 an, George <i>Type</i> <b>T</b> utput symbols th CS function. Al bed as a PCS fu l).	op. wrap then shrink <i>Response Sta</i> r. <b>2.18</b> <i>Comment Sta</i> ne PMA transmit j so, the selectable	wrap equationatus <b>W</b> <b>P93</b> CME Consultinatus <b>D</b> process shall process shall process shall	L <b>17</b> ing/ADI, APL G I map" - the gra nd PAM4 encod	roup, Aquantia, B ay mapping is des ding both say PM/	MW, Ci PC: cribed A when
<ul> <li>-This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PF Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> <li>-PMA_PCSDATAMODE.indication (pcs_data_mode)</li> <li>-149.2.2.8a.2 When generated</li> <li>-The PMA PHY Control function generates PMA_PCSDATAMODE.indication mes continuously.</li> <li>-149.2.2.8a.3 Effect of receipt</li> <li>-Upon receipt of this primitive, the PCS performs its transmit function as described 149.3.2.2.</li> </ul>	ΗΥ ssages	Equation Suggested Equation Proposed I PROPO CI 149 Zimmerma Comment "For out as a Put describut line 24 Suggested	ion is cut off at te <i>Remedy</i> ion 149-1 -> Un <i>Response</i> OSED ACCEPT SC 149.3.2.2 an, George <i>Type</i> <b>T</b> utput symbols th CS function. All bed as a PCS fu I). <i>IRemedy</i>	op. wrap then shrink <i>Response Sta</i> 7. 2.18 <i>Comment Sta</i> ne PMA transmit j so, the selectable unction. (149.3.2.2	wrap equation atus W P93 CME Consultinatus D process shall e precoder an 2.19, page 93	L <b>17</b> ing/ADI, APL G I map" - the gra nd PAM4 encod 3, line 47 and <sup>-</sup>	roup, Aquantia, B ay mapping is des ding both say PM/	MW, Ci PCS cribed A when 2 94
<ul> <li>This primitive indicates whether or not the PCS state diagrams are able to transiti their initialization states. The pcs_data_mode variable is generated by the PMA PF Control function. It is passed to the PCS Control function via the PMA_PCSDATAMODE.indication primitive.</li> <li>-149.2.2.8a.1 Semantics of the primitive</li> <li>-PMA_PCSDATAMODE.indication (pcs_data_mode)</li> <li>-149.2.2.8a.2 When generated</li> <li>-The PMA PHY Control function generates PMA_PCSDATAMODE.indication mes continuously.</li> <li>-149.2.2.8a.3 Effect of receipt</li> <li>-Upon receipt of this primitive, the PCS performs its transmit function as described 149.3.2.2.</li> <li>Proposed Response Response Response Status W</li> </ul>	ΗΥ ssages	Equation Suggested Equation Proposed I PROPO CI 149 Zimmerma Comment "For out as a Pot describut line 24 Suggested Chang	ion is cut off at the internet of the internet	op. wrap then shrink <i>Response Sta</i> 7. 2.18 <i>Comment Sta</i> ne PMA transmit j so, the selectable unction. (149.3.2.2	wrap equation atus W P93 CME Consulti atus D process shall e precoder an 2.19, page 9 nit" on page 9	L <b>17</b> ing/ADI, APL G I map" - the gra nd PAM4 encod 3, line 47 and <sup>-</sup>	ay mapping is des ding both say PM/ 149.3.2.2.20 page	MW, Ci PCS cribed A when 2 94

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	SC 149.3.2.2.21	P 95	L <b>9</b>	# 46	C/ 149	SC 149.3.5.1	P 100	L 8	# 64
Tu, Mike		Broadcom			Benyamin	, Saied	Aquantia		
Comment	<i>71</i> ·· =	nent Status D			PCS Comment	Туре Е	Comment Status D		
	is no "PCS_Data" state. It		SEND_DATA	' state. However	The s	entence seems to	be missing some words		
Suggested	_Data" might be a better na				Suggeste	dRemedy			
Option Option	1. Replace this "PCS_Da 2. Replace all "SEND_D/ ctively throughout D1.2			Data" and "PCS DAT	ALER A" bound To:	lary starting at the	frame, shall start at the beg beginning of the frame follo	wing a refresh P	PHY frame.
Proposed	Response Response	nse Status W					frame long sequence, shall tarting at the beginning of the		
PROP	OSED ACCEPT IN PRINC	JIPLE.			Proposed	Response	Response Status W		
Replac	ce this "PCS_Data" by "SE	ND_DATA"			PROF	POSED ACCEPT.			
C/ 149	SC 149.3.4.1	P 98	L <b>35</b>	# 27	C/ <b>149</b>	SC 149.3.5.1	P100	L 16	# 65
Lo, William	า	Axonne Inc.			Benyamin	, Saied	Aquantia		
Comment	Type T Comn	nent Status D			PCS Comment	Туре Т	Comment Status D		
	a bunch of changes in ma ifying text, table, and figure				de aligne	d with other varia	o indicate the frame numbers bles to use tx_alert_active	s where alert sho	ould start, it is more
See Lo	o_3ch_02_0419.pdf for all	the justification and	remedy.		Suggeste See F		amin 3ch 02 041619 slide	2	
Suggested	Pomodu				Proposed	Response	Response Status <b>Z</b>		
	inelijeuy					,			
	ment Lo_3ch_02_0419.pdf	slides 3, 5, 7, 9, 10	), 11, 12, 13		PROF	OSED REJECT.			
Implen Proposed	ment Lo_3ch_02_0419.pdf	nse Status W	), 11, 12, 13				THDRAWN by the commenter	er.	
Implen Proposed PROP	nent Lo_3ch_02_0419.pdf Response Respon	nse Status W CIPLE.					THDRAWN by the commenter	er. L 16	# 66
Implen Proposed PROP	ment Lo_3ch_02_0419.pdf Response Respon OSED ACCEPT IN PRINC	nse Status W CIPLE.			This c	SC 149.3.5.1	·		# 66
Implen Proposed PROP	ment Lo_3ch_02_0419.pdf Response Respon OSED ACCEPT IN PRINC	nse Status W CIPLE.			This c C/ 149	SC <b>149.3.5.1</b>	P100		# <u>66</u>
Implen Proposed PROP	ment Lo_3ch_02_0419.pdf Response Respon OSED ACCEPT IN PRINC	nse Status W CIPLE.			This of C/ <b>149</b> Benyamin Comment	SC <b>149.3.5.1</b> , Saied <i>Type</i> <b>T</b>	P <b>100</b> Aquantia	L 16	
Implen Proposed PROP	ment Lo_3ch_02_0419.pdf Response Respon OSED ACCEPT IN PRINC	nse Status W CIPLE.			This of C/ <b>149</b> Benyamin Comment	SC 149.3.5.1 SC 149.3.5.1 , Saied <i>Type</i> <b>T</b> anism to prevent	P 100 Aquantia Comment Status D	L 16	
Implen Proposed PROP	ment Lo_3ch_02_0419.pdf Response Respon OSED ACCEPT IN PRINC	nse Status W CIPLE.			This of Cl <b>149</b> Benyamin Comment Mech Suggeste See p	SC 149.3.5.1 SC 149.3.5.1 , Saied <i>Type</i> <b>T</b> anism to prevent <i>dRemedy</i> resentation Benya	P 100 Aquantia Comment Status D	L 16 ary since refresh 4 for changes to	is only one frame lor

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al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

/ 149 SC 149.3.6.2.2 P102 L8 # 16	Cl 149 SC 149.3.6.2.2 P102 L 35 # 69
/ienckowski, Natalie General Motors	Benyamin, Saied Aquantia
omment Type E Comment Status D EZ	Comment Type T Comment Status D EEE
Missing period at end of sentence.	Mechanism to prevent partial refresh is not necessary since refresh is only one frame long.
uggestedRemedy	SuggestedRemedy
Add period after rx_raw<71:40>	change lpi_tx_mode from:
oposed Response Response Status W	The variable is set to QUIET when (tx_lpi_qr_active * (!tx_refresh_active + tx_lpi_initial_quiet))
PROPOSED ACCEPT.	to:
	The variable is set to QUIET when (tx_lpi_qr_active * !tx_refresh_active)
/ 149 SC 149.3.6.2.2 P102 L23 # 37	Proposed Response Response Status W
cClellan, Brett Marvell	PROPOSED ACCEPT.
omment Type T Comment Status D EEE	C/ 149 SC 149.3.6.2.2 P102 L 37 # 53
alert_detect is defined as primitive from the PMA, PMA_ALERTDETECT.indication(alert_detect). However,	
PMA_ALERTDETECT.indication(alert_detect) isn't actually a defined PMA primitive.	Tu, Mike Broadcom
ggestedRemedy	Comment Type T Comment Status D pcs_data_mode
on page 80 line 26, insert	pcs_data_mode already defined in 149.4.4.1
"149.2.2.11 PMA_ALERTDETECT.indication	SuggestedRemedy
This primitive is generated by PMA Receive to indicate the status of the receive link at the local PHY when rx_lpi_active is TRUE. The parameter alert_detect conveys to the PCS	Delete line 37 to line 41.
receive function information regarding the detection of the LPI alert signal by the PMA	Proposed Response Response Status W
receive function. The criterion for setting the parameter alert_detect is left to the	PROPOSED ACCEPT IN PRINCIPLE.
implementer. 149.2.2.11.1 Semantics of the primitive	Delete page 102 lines 37 to 41.
PMA ALERTDETECT.indication (alert detect)	
The alert_detect parameter can take on one of two values of the form:	Add to page 101 line 49:
TRUE The alert signal has been reliably detected at the local receiver. FALSE The alert signal at the local receiver has not been detected.	Variable set by the PMA PHY Control function. See 149.4.4.1.
149.2.2.11.2 When generated	This depends on disposition of other pcs_data_mode comments, especially #57 & #58.
The PMA generates PMA_ALERTDETECT.indication messages to indicate a change in the alert detect	C/ 149 SC 149.3.6.2.2 P103 L8 # 67
status.	
149.2.2.11.3 Effect of receipt	Benyamin, Saied Aquantia Comment Type <b>T</b> Comment Status <b>D</b> EEE
The effect of receipt of this primitive is specified in 149.3.2.3, Figure 149-17."	Mechanism to prevent partial refresh is not necessary since refresh is only one frame long.
oposed Response Response Status W	
PROPOSED ACCEPT.	SuggestedRemedy
	Take out definition of tx_lpi_full_refresh
	Proposed Response Response Status W
	PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn SORT ORDER: Page, Line Page 9 of 21 4/11/2019 2:41:38 PM

Pa **103** 

Li 8

al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

C/ 149 SC 149.3.6.2.2 P 103 L 10 # 68	Cl 149 SC 149.3.7.2 P113 L2 # 70
Benyamin, Saied Aquantia	Benyamin, Saied Aquantia
Comment Type T Comment Status D EEE	Comment Type T Comment Status D EEE
Mechanism to prevent partial refresh is not necessary since refresh is only one frame long.	Mechanism to prevent partial refresh is not necessary since refresh is only one frame long.
SuggestedRemedy Take out definition of tx_lpi_initial_quiet	SuggestedRemedy See Benyamin_3ch_02_041619 slide 6 for changes to EEE state machine figure 149-18
Proposed Response Response Status W PROPOSED ACCEPT.	Proposed Response Response Status W PROPOSED ACCEPT.
C/ 149 SC 149.3.6.2.3 P103 L30 # 17	C/ 149 SC 149.3.8.2.5 P117 L5 # 10
Wienckowski, Natalie General Motors	Wienckowski, Natalie General Motors
Comment Type         E         Comment Status         D         PCS           Missing period at end of sentence.	Comment TypeEComment StatusDEEEEditor's note to be removed prior to draft 1.3.
SuggestedRemedy Add period after rfer timer done = TRUE	SuggestedRemedy Delete Editor's note.
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.	Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.
Delete sentence "When the timer reaches its terminal count rfer_timer_done = TRUE". This functionality is in the definition of timers, isn't normally stated, and doesn't need to be stated.	Review at end of comment resolution and determine whether work on the OAM request to exit LPI text is still needed.
C/ 149 SC 149.3.7.1 P106 L23 # <u>56</u>	
Tu, Mike Broadcom	
Comment Type T Comment Status D pcs_data_mode	
Make sure "pcs_status" is only set to TRUE after entering data mode.	
SuggestedRemedy	
Change the second sentence to: "It is only true if pcs_data_mode is true, block_lock is true, and hi_rfer is false."	
Proposed Response Response Status W	

Pa **117** Li **5** 

al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

C/ 149 SC 149.3.8	.2.5 <i>P</i> 117	L <b>6</b>	# <u>3</u> 8
McClellan, Brett	Marvell		
Comment Type T	Comment Status D		EEE

"Editor's note to be removed in draft 1.3: The OAM request to exit LPI is unneeded. Commenters are requested to provide text and edits necessary to cleanly remove this function and describe the local fault mechanism for the RS to signal exit from LPI." This function was added in Clause 97 (1000BASE-T1) to cause the local device to exit low power idle when the link partner receiver is having trouble tracking the low power idle refresh signaling. However this function may not be necessary in an XGMII based system. Also the mechanism of exiting LPI is not described. An XGMII based PHY could generate Local Fault signals toward the Reconciliation Sublayer in a low SNR condition. The RS would respond by sending Remote Faults to the link partner, causing the link partner to stop sending LPI and start sending Idle until the fault condition is cleared. The downside to this mechanism is that the data link is interrupted in the path from the link partner to the local device.

I propose we keep the current mechanism of exiting LPI based on the OAM SNR indication but clarify how the LPI is exited.

#### SuggestedRemedy

#### on page 69 line 42

Change: "When the PHY Health status received from the link partner indicates that LPI is insufficient to maintain PHY SNR, the PHY may temporarily exit LPI mode and send idles." To: "When the PHY Health status received from the link partner indicates that LPI is insufficient to maintain PHY SNR, the PHY shall temporarily exit LPI mode and send idles by replacing an LPI symbol group received at the XGMII with Idle symbols until the link partner no longer indicates insufficient SNR."

Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.

TFTD.

149.1.3.3 isn't the right place for this requirement, as it is an overview section.

Consider changes to Figure 149-18 (EEE Transmit State Diagram) which would cause the transmitter to exit quiet-refresh when the PHY-Health status from the link partner requests it.

(possible late presentation)

C/ 149	SC 149.3.8.3	P <b>120</b>	L 53	# <u>1</u> 8	
Wienckows	ki, Natalie	General Mo	otors		
Comment T	ype E	Comment Status D			EZ
Reorde	r references to be	e in numerical order.			
SuggestedF	Remedy				
Swap re	eferences to Figu	re 149-23 and Figure 149	9-22.		
Proposed R	Response	Response Status W			
PROPC	SED ACCEPT.				
C/ 149	SC 149.3.8.4.3	P 126	L 16	# 20	
Wienckows	ki, Natalie	General Mo	otors		
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Implement proposal in wienckowski\_3ch\_01a\_0419.pdf.

Pa **133** Li **1** 

al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

Change all 3 instances of UCT to RX_FRAME         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       The Se are corrected in the proposal for Comment #19. This is only needed if Comment #19 is not accepted.       The Se are corrected in the proposal for Comment #19. This is only needed if Comment #19 is not accepted.       P134       L19       # 54         CI 149       SC 149.4.2.4.6       P 138       L51       # 39         Tu, Mike       Broadcom       Comment Status       D       pcs_data_mode         In Figure 149-26, "pcs_data_mode" is missing       D       pcs_data_mode       SC         SuggestedRemedy       In Figure 149-26:       1. Add an arrowed line coming out of the PHY CONTROL block, going up toward the PMA SERVICE INTERFACE.       SuggestedRemedy       SuggestedRemedy         1. node is made available for non-EEE mode as well, then make this a SOLID line. Otherwise make this a DASHED line.       W       PROPOSED ACCEPT IN PRINCIPLE.         Proposed Response       Response Status       W       PROPOSED ACCEPT IN PRINCIPLE.         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Adopt changes in zimmerman_3ch_01_0419.pdf         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       P138       L52       11	C/ 149 SC 149.3.8.4.	6 P 133	L <b>9</b>	# <u>3</u> 5	C/ 149	SC 149.4.2.4.	3 P 137	L 19	# 63	
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#19 is not accepted.       C/ 149 SC 149.4.2       P 134 L 19 # 54         C/ 149 SC 149.4.2.4.6       P 138 L 51 # 39         Tu, Mike Broadcom       Broadcom         Comment Type T Comment Status D       pcs_data_mode         In Figure 149-26, "pcs_data_mode" is missing       bcs_data_mode         SuggestedRemedy       In Figure 149-26, "pcs_data_mode" is missing       SuggestedRemedy         In Figure 149-26, "pcs_data_mode is made available for non-EEE mode as well, then make this a SOLID line. Otherwise make this a DASHED line.       SuggestedRemedy         Add pt changes in zimmerman_3ch_01_04/19.pdf       Proposed Response Response Status W       Proposed Response Status W         PROPOSED ACCEPT IN PRINCIPLE.       Final implementation depends on outcome of comments #57 & #58.       SuggestedRemedy         Mienckowski, Natalie General Motors       Comment Type E Comment Status D       SuggestedRemedy         Dirence There are a status W       Proposed Response Response Status W       Proposed Response Status W       Proposed Response Status W         PROPOSED ACCEPT IN PRINCIPLE.       Ci 149 SC 149.4.2.4.6       P 138 L 52 # 11       SuggestedRemedy         Diete Editor's note to be removed prior to draft 1.3.       SuggestedRemedy       SuggestedRemedy       SuggestedRemedy         Diete Editor's note to be removed prior to draft 1.3.       SuggestedRemedy       SugestedRemedy       SuggestedRemedy <td>These are corrected in</td> <td>the proposal for Comment #1</td> <td>9. This is only</td> <td>needed if Comment</td> <td>PROF</td> <td>POSED ACCEPT.</td> <td></td> <td></td> <td></td> <td></td>	These are corrected in	the proposal for Comment #1	9. This is only	needed if Comment	PROF	POSED ACCEPT.				
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Tu, Mike       Broadcom         Comment Type T       Comment Status D       pcs_data_mode         In Figure 149-26;       for some of the PHY CONTROL block, going up toward the PMA         SERVICE INTERFACE.       2. If pcs_data_mode is made available for non-EEE mode as well, then make this a SOLID line.         Proposed Response       Response Status W         PROPOSED ACCEPT IN PRINCIPLE.       Proposed Response Status W         Final implementation depends on outcome of comments #57 & #58.       %58.         Vienckowski, Natalie       General Motors         Comment Type E       Comment Status D       SuggestedRemedy         Direly Editor's note flags need for consistent usage of send_s. In most cases send_s is a second to the proposed for consistent usage of send_s. In most cases send_s is a second to the proposed for consistent usage of send_s. In most cases send_s is a second to the proposed Response to the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the PMA transmit comes from the way the input to the	C/ 149 SC 149.4.2	P134	L 19	# 54	Zimmerm	an, George	CME Consult	ing/ADI, APL Gr	oup, Aquantia, BMW	/, Ci
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C/ <b>149</b>	SC 149.4.2.6	P 141	L <b>29</b>	# 62	
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can ac		or can start at a random PN to the correlator trigger. I p of alert			
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upon e transn	entering into the T nission of first sym	ator shift registers shall be RANSMIT_DISABLE state ( bol of alert sequence. The r e between separate periods	see Figure 149- eceiver may not	-31) or on the	
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PROP Chang upon e To: Ti upon e transn Cl 149 Tu, Mike Comment Make for the Suggested 1. Del 2. Del	POSED ACCEPT II ge: The PN seque entering into the T he PN sequence g entering into the T nission of first sym SC 149.4.4.1 Type T "pcs_data_mode" e motivation. dRemedy ete line 20. ete the last senste	N PRINCIPLE. nce generator shift registers RANSMIT_DISABLE state ( lenerator shift registers shal RANSMIT_DISABLE state ( bol of alert sequence. P147 Broadcom Comment Status D	see Figure 149- I be reset to a va see Figure 149- <i>L</i> 20 nal EEE. See "t	-31). alue of S[7:0]=00 -31) or on the # <u>55</u> <i>pcs_data</i> u_3ch_02_0419.	00001 <i>a_mode</i> pdf"
PROP Chang upon e To: Ti upon e transm C/ 149 Tu, Mike Comment Make for the Suggested 1. Del 2. Del EEE c	POSED ACCEPT II ge: The PN seque entering into the T he PN sequence of entering into the T nission of first sym SC 149.4.4.1 Type T "pcs_data_mode" e motivation. dRemedy ete line 20. ete the last senste capability, the PHY	N PRINCIPLE. nce generator shift registers RANSMIT_DISABLE state ( generator shift registers shal RANSMIT_DISABLE state ( bol of alert sequence. P 147 Broadcom Comment Status D available even without optic nce, starting at the end of lin operates as if the value of the	see Figure 149- I be reset to a va see Figure 149- <i>L</i> 20 nal EEE. See "t	-31). alue of S[7:0]=00 -31) or on the # <u>55</u> <i>pcs_data</i> u_3ch_02_0419.	00001 <i>a_mode</i> pdf"
PROP Chang upon e To: Ti upon e transm <i>Cl</i> <b>149</b> Tu, Mike <i>Comment</i> Make for the <i>Suggested</i> 1. Del 2. Del EEE c <i>Proposed</i>	POSED ACCEPT II ge: The PN seque entering into the T he PN sequence g entering into the T nission of first sym SC 149.4.4.1 Type T "pcs_data_mode" e motivation. dRemedy ete line 20. ete the last senste	N PRINCIPLE. nce generator shift registers RANSMIT_DISABLE state ( generator shift registers shal RANSMIT_DISABLE state ( bol of alert sequence. P147 Broadcom Comment Status D available even without optic nce, starting at the end of lin operates as if the value of the Response Status W	see Figure 149- I be reset to a va see Figure 149- <i>L</i> 20 nal EEE. See "t	-31). alue of S[7:0]=00 -31) or on the # <u>55</u> <i>pcs_data</i> u_3ch_02_0419.	00001 <i>a_mode</i> pdf"
PROP Chang upon e To: Ti upon e transm Cl 149 Tu, Mike Comment Make for the Suggested 1. Del 2. Del EEE c Proposed PROP	POSED ACCEPT II ge: The PN seque entering into the TI he PN sequence of entering into the TI nission of first sym SC 149.4.4.1 Type T "pcs_data_mode" e motivation. dRemedy ete line 20. ete the last senste exapability, the PHY Response POSED ACCEPT II	N PRINCIPLE. nce generator shift registers RANSMIT_DISABLE state ( generator shift registers shal RANSMIT_DISABLE state ( bol of alert sequence. P147 Broadcom Comment Status D available even without optic nce, starting at the end of lin operates as if the value of the Response Status W	see Figure 149- I be reset to a va see Figure 149- <i>L</i> 20 anal EEE. See "t the 24: "In the ab his variable is T	-31). alue of S[7:0]=00 -31) or on the # <u>55</u> <i>pcs_data</i> u_3ch_02_0419. osence of the opti RUE."	00001 <i>a_mode</i> pdf"

C/ 149 SC	149.4.5	P 149	L <b>6</b>	# 57
Tu, Mike		Broadcom		
Comment Type	т	Comment Status D		pcs_data_mode

The PHY Control state diagram and the Link Monitor state diagram will result in conflicted state machines. Also if the link is interrupted after entering the SEND\_DATA state, the PHY will falsely report the link status=OK for 100msec while the data connection had already been lost.

## SuggestedRemedy

Adopt the changes as proposed in ""tu\_3ch\_02\_0419.pdf"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD. Task Force to hear presentation tu\_3ch\_02\_0419.pdf and decide which, if any, of these changes should be made and if there are additional changes required.

C/ 149	SC 149.4.5.	P 150	L 18	# 58
Tu, Mike		Broadcom		
Comment Ty	pe <b>T</b>	Comment Status D		pcs_data_mode

The PHY Control state diagram and the Link Monitor state diagram will result in conflicted state machines. Also if the link is interrupted after entering the SEND\_DATA state, the PHY will falsely report the link status=OK for 100msec while the data connection had already been lost.

## SuggestedRemedy

Adopt the changes as proposed in ""tu\_3ch\_02\_0419.pdf"

Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.

TFTD. Task Force to hear presentation tu\_3ch\_02\_0419.pdf and decide which, if any, of these changes should be made and if there are additional changes required.

TYPE: TR/technical required ER/editorial required GR/genera	al required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed Z/withdrawn
SORT ORDER: Page, Line	

Pa **150** Li **18** 

al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Tز

C/ 149	SC 149.5.1	P 151	L <b>39</b>	# 36	C/ 149	SC 149.5.1	P 151	L <b>41</b>	# 84
Lo, William	ı	Axonne Inc.			den Beste	n, Gerrit	NXP Semicon	ductors	
Comment	Туре <b>т</b>	Comment Status D		Test Modes	Comment	Туре Т	Comment Status D		Test Modes
	oid the possibility of clarifying stateme	of TX_TCLK_175 being inter nt.	preted as divide	e by 32 for all speeds,	is stro	ngly recommend	ns are currently defined on a able to measure jitter at spee	d directly from t	the transmit path and
Suggested	lRemedy					a a divided patter tant to meet perfo	n or separate test clock as the	ese might mask	c effects that are
		is equal to 5625 MHz divided			•		Jimanoo.		
		vided by 32, 16, and 8 for 10	GBASE-T1, 5G	BASE-T1, and	Suggestee				
2.5GB/	ASE-T1 respectiv	ely.					t mode 2 for measuring mast	er transmit jitter	on MDI at full speed,
Proposed I	Response	Response Status W					I} symbol pattern. vide-by-two clock where both	rising and falling	a zero crossinas are
PROP	OSED ACCEPT I	N PRINCIPLE.				into account for i		nong and ranni	
Chang	e: TX_TCLK_175	is equal to 5625 MHz divide	d by 32		Proposed	Response	Response Status W		
То: ТУ	X_TCLK_175 is e	qual to 5625 x S MHz divideo	l by 32 x S.		PROF	POSED ACCEPT	,		
C/ 149	SC 149.5.1	P 151	L <b>40</b>	# 22			ion of Test mode 2, page 151		
Farjadrad,	Ramin	Aquantia					on MDI when transmitter is i		
Comment		Comment Status D		Test Modes			PHY shall transmit a continu 03B (as specified in Clause 9		
		nclude total DJ and EOJ spe	c			from its local clo	· ·	4.2.0.2) with the	s transmitted symbols
			•		This n	eeds to be the sa	ame solution as comment #22	2.	
Suggested	lRemedy								

Test mode 2 is for transmitter jitter testing on MDI when transmitter is in MASTER timing mode. When test mode 2 is enabled, the PHY shall transmit a continuous pattern of 16\*S {+1} symbols followed by 16\*S {-1} symbols for Random jitter measurement (RJ), a continuous pattern of JP03A (as specified in Clause 94.2.9.1) for Deterministic jitter measurement (DJ), and JP03B (as specified in Clause 94.2.9.2) for even-odd jitter measurement (EOJ) with the transmitted symbols timed from its local clock source

## Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Replace current definition of Test mode 2, page 151 lines 41-43 with - Test mode 2 is for transmitter jitter testing on MDI when transmitter is in MASTER timing mode. When test mode 2 is enabled, the PHY shall transmit a continuous pattern of JP03A (as specified in Clause 94.2.9.1) or JP03B (as specified in Clause 94.2.9.2) with the transmitted symbols timed from its local clock source.

This needs to be the same solution as comment #84.

Pa **151** Li **41** 

SORT ORDER: Page, Line

al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

Propose to scale the droop measurement period with the speed, so replate by 4/S ns to 16/S ns (12/S ns period). Alternatively, this measurement periods after the zero-crossing and a symbol periods after a zero-crossing (72 symbol periods)"         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value at a final value of 24 symbol periods after the zero-crossing and a final value at 6 periods.         C/       149       SC 149.5.2.3       P154       L17         den Besten, Gerrit       NXP Semiconductors	al value at 4 ns 12 ns period)". I contain 4x more LW at 2.5Gbps od is made a fixed f droop is ace 4, 16 and 12, eriod can be	Suggested Refer t Proposed I PROPO	<i>Type</i> <b>T</b> transmit timing <i>Remedy</i> to page 5 of ad
Current the droop requirement is specified as "the magnitude of both the negative droop shall be less than 15%, measured with respect to an initia after the zero crossing and a final value at 16 ns after the zero crossing (This spec is currently independent of the speed, which makes this period symbols at 10Gbps than at 2.5Gbps. This implies a significantly larger BI which increases the peak differential amplitude. If the measurement period number of symbols or a period length scaling by 1/S, the signal impact of equivalent for all rates.  SuggestedRemedy Propose to scale the droop measurement period with the speed, so repla by 4/S ns to 16/S ns (12/S ns period). Alternatively, this measurement per specified as "initial value 24 symbol periods after the zero-crossing and a symbol periods after a zero-crossing (72 symbol periods)"  Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.  Change: initial value at 4 ns after the zero crossing and a final value at 1 crossing (12 ns period). To: initial value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods.  C/ 149 SC 149.5.2.3 P154 L17  den Besten, Gerrit NXP Semiconductors	positive and al value at 4 ns 12 ns period)". I contain 4x more LW at 2.5Gbps od is made a fixed f droop is acce 4, 16 and 12, eriod can be	Modify Suggested Refer t Proposed I PROP Add se	transmit timing <i>Remedy</i> to page 5 of ad <i>Response</i> OSED ACCEP
negative droop shall be less than 15%, measured with respect to an initial after the zero crossing and a final value at 16 ns after the zero crossing (         This spec is currently independent of the speed, which makes this period symbols at 10Gbps than at 2.5Gbps. This implies a significantly larger BI which increases the peak differential amplitude. If the measurement period number of symbols or a period length scaling by 1/S, the signal impact of equivalent for all rates.         SuggestedRemedy         Propose to scale the droop measurement period. Alternatively, this measurement period by 4/S ns to 16/S ns (12/S ns period). Alternatively, this measurement period symbol periods after a zero-crossing (72 symbol periods)"         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero-crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value at 1 crossing (12 ns period).         C/       149       SC 149.5.2.3       P154       L17         den Besten, Gerrit       NXP Semiconductors	al value at 4 ns 12 ns period)". I contain 4x more LW at 2.5Gbps od is made a fixed f droop is ace 4, 16 and 12, eriod can be	Suggested Refer t Proposed I PROPO	Remedy to page 5 of ad Response OSED ACCEP
after the zero crossing and a final value at 16 ns after the zero crossing (         This spec is currently independent of the speed, which makes this period symbols at 10Gbps than at 2.5Gbps. This implies a significantly larger BL which increases the peak differential amplitude. If the measurement period number of symbols or a period length scaling by 1/S, the signal impact of equivalent for all rates.         SuggestedRemedy         Propose to scale the droop measurement period with the speed, so repla by 4/S ns to 16/S ns (12/S ns period). Alternatively, this measurement periods after the zero-crossing and a symbol periods after a zero-crossing (72 symbol periods)"         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero-crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value at 1 crossing (12 ns period).         C/       149       SC 149.5.2.3       P154       L17         den Besten, Gerrit       NXP Semiconductors	12 ns period)". I contain 4x more LW at 2.5Gbps od is made a fixed f droop is ace 4, 16 and 12, eriod can be	Refer t Proposed I PROP Add se	o page 5 of ad Response OSED ACCEP
This spec is currently independent of the speed, which makes this period symbols at 10Gbps than at 2.5Gbps. This implies a significantly larger BI which increases the peak differential amplitude. If the measurement period number of symbols or a period length scaling by 1/S, the signal impact of equivalent for all rates.         SuggestedRemedy         Propose to scale the droop measurement period with the speed, so repla by 4/S ns to 16/S ns (12/S ns period). Alternatively, this measurement periods after the zero-crossing and a symbol periods after a zero-crossing (72 symbol periods)"         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero-crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value at 1 crossing (12 ns period).         C/       149       SC 149.5.2.3       P154       L17         den Besten, Gerrit       NXP Semiconductors	I contain 4x more LW at 2.5Gbps od is made a fixed f droop is ace 4, 16 and 12, eriod can be	Proposed I PROP Add se	Response OSED ACCEP
which increases the peak differential amplitude. If the measurement period number of symbols or a period length scaling by 1/S, the signal impact of equivalent for all rates.         SuggestedRemedy         Propose to scale the droop measurement period with the speed, so replate by 4/S ns to 16/S ns (12/S ns period). Alternatively, this measurement periods after the zero-crossing and a symbol periods after a zero-crossing (72 symbol periods)"         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero-crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value at 5 crossing (12 ns period).         C/       149       SC 149.5.2.3       P154       L17         den Besten, Gerrit       NXP Semiconductors	od is made a fixed f droop is ace 4, 16 and 12, priod can be	Add se	OSED ACCEP
number of symbols or a period length scaling by 1/S, the signal impact of equivalent for all rates.         SuggestedRemedy         Propose to scale the droop measurement period with the speed, so replate by 4/S ns to 16/S ns (12/S ns period). Alternatively, this measurement periods after the zero-crossing and a symbol periods after a zero-crossing (72 symbol periods)"         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero-crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value at 5 periods.         C/       149       SC 149.5.2.3       P154       L17         den Besten, Gerrit       NXP Semiconductors	f droop is ace 4, 16 and 12, priod can be	Add se	
SuggestedRemedy         Propose to scale the droop measurement period with the speed, so replatively and the specified as "initial value 24 symbol periods after the zero-crossing and a symbol periods after a zero-crossing (72 symbol periods)"         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero-crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value of 21 symbol periods after the zero-crossing and a final value of 24 symbol periods.         C/       149       SC 149.5.2.3       P154       L17         den Besten, Gerrit       NXP Semiconductors	eriod can be		ction 149.5.2.3
Propose to scale the droop measurement period with the speed, so replate by 4/S ns to 16/S ns (12/S ns period). Alternatively, this measurement periods after the zero-crossing and a symbol periods after a zero-crossing (72 symbol periods)"         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value at a final value of 24 symbol periods after the zero-crossing and a final value at 6 periods.         C/       149       SC 149.5.2.3       P154       L17         den Besten, Gerrit       NXP Semiconductors	eriod can be		.0001140.0.2.0
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specified as "initial value 24 symbol periods after the zero-crossing and a symbol periods after a zero-crossing (72 symbol periods)"         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing (72 symbol periods).         C/       149       SC 149.5.2.3       P 154       L 17         den Besten, Gerrit       NXP Semiconductors			SC 149.5.2.
Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change: initial value at 4 ns after the zero crossing and a final value at 1 crossing (12 ns period).       To: initial value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing after the		den Bester	ı, Gerrit
PROPOSED ACCEPT IN PRINCIPLE.         Change: initial value at 4 ns after the zero crossing and a final value at 1 crossing (12 ns period).         To: initial value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing after the		Comment	51
Change: initial value at 4 ns after the zero crossing and a final value at 1 crossing (12 ns period). To: initial value of 24 symbol periods after the zero-crossing and a final v periods after the zero-crossing (72 symbol periods).Cl149SC149.5.2.3P 154L 17den Besten, GerritNXP Semiconductors			nit power limits F was -0.5 to 2
crossing (12 ns period). To: initial value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing (72 symbol periods). C/ 149 SC 149.5.2.3 P154 L17 den Besten, Gerrit NXP Semiconductors			prefered to ke
crossing (12 ns period). To: initial value of 24 symbol periods after the zero-crossing and a final value of 24 symbol periods after the zero-crossing (72 symbol periods). C/ 149 SC 149.5.2.3 P154 L17 den Besten, Gerrit NXP Semiconductors	6 ns after the zero		the nominal po
periods after the zero-crossing (72 symbol periods).         C/       149       SC 149.5.2.3       P 154       L 17         den Besten, Gerrit       NXP Semiconductors		Suggested	Remedy
Cl         149         SC         149.5.2.3         P 154         L 17           den Besten, Gerrit         NXP Semiconductors	alue of 96 symbol	Chang	e range into -0
den Besten, Gerrit NXP Semiconductors		Proposed I	Response
	# 85	PROP	OSED ACCEP
		TFTD.	Needs to have
Comment Type T Comment Status D	Test Modes	01.4.40	SC 440 5 3
"The band-pass bandwidth of the measurement device shall be larger that is probably based on a divide-by-32 clock, that would run at 5625/32=175		C/ 149	SC 149.5.2.
200MHz wouldn't be limiting in that case. Note that higher frequency jitter		Tu, Mike	<b>-</b>
in this case.		Comment The mi	<i>Type</i> <b>T</b> inimum transm
SuggestedRemedy			nentation losse
Propose to adapt test mode 2 to a symbol rate toggling {+1} {-1} pattern a with a bandwidth of the measurement device of at least Fmax.	and measure jitter	Suggested	Remedy
Proposed Response Response Status W		Chang	e from: "the tra
PROPOSED REJECT.		To: "th	e transmit pow
		Proposed I	•
The proposed change in the comment does not contain sufficient detail s understand the specific changes requested by the commenter. In addition		PROP	OSED ACCEP
change in the comment does not contain sufficient detail so that the TF of		TFTD.	Needs to have
specific changes requested by the commenter.			
TYPE: TR/technical required ER/editorial required GR/general required T/te COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE \$			

Test Modes       C         and       t         t 4 ns       S         idy 10, 100       S         4x more       S         iGbps       F         iGbps       F         and 12, 5       C         be       d         ue 96       C         r the zero       S         16 symbol       S	SuggestedF Refer to Proposed R PROPC Add sec C/ <b>149</b> len Besten, Comment T Transm last F2F that he to shift i SuggestedF	Type <b>T</b> transmit timing j Remedy o page 5 of ad he Response OSED ACCEPT ction 149.5.2.3.1 SC <b>149.5.2.4</b> , Gerrit Type <b>T</b> it power limits a was -0.5 to 2.5 prefered to keep the nominal pow Remedy	jitter in Maste noc presentat <i>Response</i> IN PRINCIP 1 (named 149 1 (named 149 50Bm, with s p a +/-2dB r	ion (farjadrad_ <i>Status</i> <b>W</b> LE. 9.5.2.3.2) in far <i>P</i> <b>154</b> NXP Semico t <i>Status</i> <b>D</b> by accident set upport from mu	ude EOJ and DJ s 3ch_adhoc01b_0 rjadrad_3ch_adho <i>L</i> 24 onductors t to -1 to 2dBm. M ultiple silicon supp f a +/-1.5dB range	419) 0c01b_04 # 1y proposa	73 <i>Transmit power</i> al during the se indicated
est Modes C and 4 ns iod)". S iva more Gbps F e a fixed F and 12, C be ie 96 d c the zero S 6 symbol	Comment T Modify f SuggestedF Refer to Proposed R PROPO Add sec Cl <b>149</b> len Besten, Comment T Transm last F2F that he to shift f SuggestedF	Type <b>T</b> transmit timing j Remedy o page 5 of ad he Response OSED ACCEPT ction 149.5.2.3.1 SC <b>149.5.2.4</b> , Gerrit Type <b>T</b> it power limits a was -0.5 to 2.5 prefered to keep the nominal pow Remedy	jitter in Maste noc presentat <i>Response</i> IN PRINCIP 1 (named 149 1 (named 149 50Bm, with s p a +/-2dB r	t Status <b>D</b> er mode to incl ion (farjadrad_ Status <b>W</b> LE. 9.5.2.3.2) in far P154 NXP Semico t Status <b>D</b> by accident set upport from mu	3ch_adhoc01b_0 rjadrad_3ch_adho <i>L</i> 24 onductors t to -1 to 2dBm. M ultiple silicon supp	419) 0c01b_04 # 1y proposa	19.pdf. 73 <i>Transmit power</i> al during the ke indicated
t 4 ns iod)". S 4x more Gbps F e a fixed F and 12, C be Je 96 d r the zero S 6 symbol	SuggestedF Refer to Proposed R PROPC Add sec C/ <b>149</b> len Besten, Comment T Transm last F2F that he to shift to SuggestedF	Remedy p page 5 of ad he Response DSED ACCEPT ction 149.5.2.3.1 SC 149.5.2.4 , Gerrit Type T it power limits a = was -0.5 to 2.5 prefered to keep the nominal pow Remedy	Commen Commen Commen Commen are currently 5dBm, with s p a +/-2dB ra	ion (farjadrad_ <i>Status</i> <b>W</b> LE. 9.5.2.3.2) in far <i>P</i> <b>154</b> NXP Semico t <i>Status</i> <b>D</b> by accident set upport from mu	3ch_adhoc01b_0 rjadrad_3ch_adho <i>L</i> 24 onductors t to -1 to 2dBm. M ultiple silicon supp	419) 0c01b_04 # 1y proposa	73 <i>Transmit power</i> al during the se indicated
iod)". S 4x more Gbps F e a fixed F and 12, C be d le 96 d 	Refer to Proposed R PROPC Add sec C/ 149 len Besten, Comment T Transm last F2F that he to shift f SuggestedF	b page 5 of ad he Response DSED ACCEPT ction 149.5.2.3.1 SC 149.5.2.4 , Gerrit Type T it power limits a F was -0.5 to 2.5 prefered to keep the nominal pow Remedy	Response IN PRINCIP 1 (named 14 1 (named 14 5 <i>Commen</i> are currently 5dBm, with s p a +/-2dB r	Status W LE. 9.5.2.3.2) in far P154 NXP Semico t Status D by accident set upport from mu	rjadrad_3ch_adho <i>L</i> 24 onductors t to -1 to 2dBm. M ultiple silicon supp	bc01b_04 # Iy proposa	73 <i>Transmit power</i> al during the se indicated
the zero	Refer to Proposed R PROPC Add sec C/ 149 len Besten, Comment T Transm last F2F that he to shift f SuggestedF	b page 5 of ad he Response DSED ACCEPT ction 149.5.2.3.1 SC 149.5.2.4 , Gerrit Type T it power limits a F was -0.5 to 2.5 prefered to keep the nominal pow Remedy	Response IN PRINCIP 1 (named 14 1 (named 14 5 <i>Commen</i> are currently 5dBm, with s p a +/-2dB r	Status W LE. 9.5.2.3.2) in far P154 NXP Semico t Status D by accident set upport from mu	rjadrad_3ch_adho <i>L</i> 24 onductors t to -1 to 2dBm. M ultiple silicon supp	bc01b_04 # Iy proposi	73 <i>Transmit power</i> al during the se indicated
Gbps     F       a fixed     F       and 12,     C       be     d       e 96     C       the zero     S       S symbol     S	PROPC Add sec 2/ <b>149</b> len Besten, Comment T Transm last F2F that he to shift SuggestedF	DSED ACCEPT ction 149.5.2.3.1 SC 149.5.2.4 , Gerrit ype T it power limits a <sup>-</sup> was -0.5 to 2.5 prefered to keep the nominal pow Remedy	IN PRINCIP 1 (named 14 <i>Commen</i> are currently 5dBm, with s p a +/-2dB r	LE. 9.5.2.3.2) in far P <b>154</b> NXP Semico t Status <b>D</b> by accident set upport from mu	L 24 Donductors t to -1 to 2dBm. Multiple silicon supp	# Iy proposa bliers. Mik	73 <i>Transmit power</i> al during the se indicated
a fixed and 12, C be e 96 d the zero S symbol	PROPC Add sec 2/ <b>149</b> len Besten, Comment T Transm last F2F that he to shift SuggestedF	DSED ACCEPT ction 149.5.2.3.1 SC 149.5.2.4 , Gerrit ype T it power limits a <sup>-</sup> was -0.5 to 2.5 prefered to keep the nominal pow Remedy	IN PRINCIP 1 (named 14 <i>Commen</i> are currently 5dBm, with s p a +/-2dB r	LE. 9.5.2.3.2) in far P <b>154</b> NXP Semico t Status <b>D</b> by accident set upport from mu	L 24 Donductors t to -1 to 2dBm. Multiple silicon supp	# Iy proposa bliers. Mik	73 <i>Transmit power</i> al during the se indicated
the zero	Cl <b>149</b> len Besten, Comment T Transm last F2F that he to shift SuggestedF	SC 149.5.2.4 , Gerrit <i>ype</i> <b>T</b> iit power limits a <sup>2</sup> was -0.5 to 2.5 prefered to keep the nominal pow Remedy	Commen are currently 5dBm, with s p a +/-2dB r	P154 NXP Semico t Status D by accident set upport from mu	L 24 Donductors t to -1 to 2dBm. Multiple silicon supp	# Iy proposa bliers. Mik	73 <i>Transmit power</i> al during the se indicated
the zero	len Besten, Comment T Transm last F2F that he to shift t SuggestedF	, Gerrit ype T it power limits a was -0.5 to 2.5 prefered to keep the nominal pow Remedy	Commen are currently 5dBm, with s p a +/-2dB	NXP Semico t Status <b>D</b> by accident set upport from mu	onductors t to -1 to 2dBm. M ultiple silicon supp	ly proposa	<i>Transmit power</i> al during the se indicated
e 96 d C the zero S symbol	Comment T Transm last F2F that he to shift SuggestedF	ype <b>T</b> iit power limits a <sup>-</sup> was -0.5 to 2.5 prefered to keep the nominal pow Remedy	are currently 5dBm, with s p a +/-2dB ra	t Status <b>D</b> by accident set upport from mu	t to -1 to 2dBm. M ultiple silicon supp	oliers. Mik	al during the te indicated
the zero S symbol	Transm last F2F that he to shift t SuggestedF	it power limits a was -0.5 to 2.5 prefered to keep the nominal pow Remedy	are currently 5dBm, with s p a +/-2dB ra	by accident set	ultiple silicon supp	oliers. Mik	al during the te indicated
S 6 symbol	last F2F that he to shift t SuggestedF	was -0.5 to 2.5 prefered to keep the nominal pow Remedy	5dBm, with s pa+/-2dBra	upport from mu	ultiple silicon supp	oliers. Mik	ke indicated
S 6 symbol	00						
	Change	range into -0.5					
P		runge into 0.0	to 2.5dBm				
	Proposed R	Response	Response	Status W			
	PROPC	DSED ACCEPT	IN PRINCIP	LE.			
	тстр	Needs to have t	the come cal	ution on comm	ant #EO		
est Modes	IFID.	ineeus to nave t	life same so	ution as comm	ient #39.		
12. 1110	C/ 149	SC 149.5.2.4		P 154	L <b>24</b>	#	59
o T masked	u, Mike			Broadcom			
C	Comment T	<i>уре</i> <b>т</b>	Commen	t Status D			Transmit power
			•	d be reduce to	-2 dBm, in order	to accoun	nt for potential
ure jitter	•	entation losses.					
S	SuggestedF		amit newer -	hall hain the	ongo of 1 dDm to	2 dP	
					ange of -1 dBm to dBm to 2 dBm'		
F	Proposed R	•		Status W			
TF can	'	DSED ACCEPT					
oosed stand the	TETD	Needs to have t	the same so	ution as comm	ent #73		
	ITTD.		the same so		iont #70.		
E/editorial G/gener				Pa 1	154	t	Page 15 of 21

al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

Comment Type       T       Comment Status       D       Transmit PSD         Transmit PSD mask. During the Vancouver meeting I've presented modifications to the Transmit PSD mask. There have been interactive discussion on this with some modifications to the material. The decision on this topic was postponed to the next meeting to give people time to review internally.       T       Comment Status       D	o, the structure of t crosstalk coupling th	
Transmit PSD mask. During the Vancouver meeting I've presented modifications to the Transmit PSD mask. There have been interactive discussion on this with some modifications to the material. The decision on this topic was postponed to the next meeting to give people time to review internally. The decision of the material to give people time to review internally.	crosstalk coupling th	the sentence needs to
Transmit PSD mask. There have been interactive discussion on this with some modifications to the material. The decision on this topic was postponed to the next meeting to give people time to review internally.	crosstalk coupling th	
SuggestedRemedy Propose to change transmit PSD mask according to the attached presentation.	turbing PSD levels,	adjusted for 2.5G and s, not on receiver noise
SuggestedRemedy		
Proposed Response       Response Status       W       Replace "bandwidth of TBD MHz, and magnitude         PROPOSED ACCEPT IN PRINCIPLE.       Insert Table 149-xx (autonumbered) after Figure         TFTD. Task Force to hear presentation DenBesten_3ch_01_0419.pdf and decide.       Columns, semicolons for rows)	149-41, with entrie	es (commas between
C/ 149         SC 149.5.3.2         P 156         L 9         # 12         and body rows:           10GBASE_T1         3000 MHz         -152 dBm/Hz         10GBASE_T1         3000 MHz         -152 dBm/Hz		
C/ 149         SC 149.5.3.2         P 156         L 9         # 12         10GBASE-T1, 3000 MHz, -152 dBm/Hz;           Wienckowski, Natalie         General Motors         5GBASE-T1, 1500 MHz, -149 dBm/Hz;		
Comment Type E Comment Status D Link Segment 2.5GBASE-T1, 750 MHz, -146 dBm/Hz;		
Editor's note to be removed prior to draft 1.3. Proposed Response Response Status W		
SuggestedRemedy		
Delete Editor's note.         C/         149         SC 149.5.3.2         P156	L 12	# 87
Proposed Response Response Status W Zimmerman, George CME Cons	sulting/ADI, APL G	roup, Aquantia, BMW, Ci
PROPOSED ACCEPT IN PRINCIPLE. Comment Type T Comment Status D	<b>U</b>	Test Modes
Review at end of comment resolution and determine whether work on the Alien Crosstalk spec is still needed. Comment 228 from draft 1.1 was implemented in the noise level is at the MDI of the DUT. Langua proposed response is aligned with accepted language.	age also needs edit	torial clean up. The
SuggestedRemedy		
Change: "The test is performed with a noise sou Gaussian distribution, bandwidth of TBD MHz an to: "The test is performed with a noise source su bandwidth of TBD MHz, and magnitude of TBD of Editorial license to fill in the TBDs based on othe	nd magnitude of TB uch that noise with a dBm/Hz is present a	3D dBm/Hz." a Gaussian distribution,
Proposed Response Response Status W		
PROPOSED ACCEPT IN PRINCIPLE.		

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C/ 149	SC 149.7.1	.3	P 159	L <b>22</b>	# 81	C/ 149	SC 149.7.1.4	P 160	L <b>36</b>	# 79
den Bestei	n, Gerrit		NXP Semicor	nductors		den Bester	n, Gerrit	NXP Semi	conductors	
Comment	Туре Т	Comme	ent Status D		Link Segment	Comment	Туре Т	Comment Status D		Link Segment
interna magni previo are the and th profile tighter unnec Suggested Propos N=-1 f	al losses, drive itude at Nyquis ously presented e issues towarne in clusion of a s (DiBiaso_3cl n the link segm essarilly burde dRemedy use to add an e for IL>24dB	tevel tolerar can be >40; RL data, the s 5.5GHz (w 'first connec _01_0518.p ent return los n the transce	x the received the e main reasons for which are eliminate ctor profile'. All cas df) pass with much as spec for 10Gbps	on impedance ra signal magnitud the fairly loose I d now as Fmax ses with the seco n margin. I think s at high attenua	nge, makes that echo e. Scanning through ink segment RL specs is always 4GHz or less) ond and third connector we should consider to	muelle states few m seems 6dB/oc this 4n cables templa mV. I t to coup that the measu	r_3ch_02a_0518 that "With existin / (4mV or less) is based on Not ctave slope. Which N safeguarded b showed that res te. The differenti hink we should e bling attenuation) e coupling attenu	tenuation spec,originating b,pdf might be insufficient og cables and connectors s achievable in a BCI test te that the suggested temp ch BCI level is assumed a by the coupling attenuation ult? Note that these cable al signal magnitude at Ny ensure that the injected int o should be at least 6dB be lation spec needs to be tig enuation curves the corner e sufficient.	to ensure signal ir an introduced diffe with 200mA interfi- plates in that ppt d chievably by these n template or is thi s are apparently b quist can be about erfering differentia elow the signal lev phtened. Looking a	tegrity. On slide 4 it erential noise level of a ering current." which on't seem to have a e transceivers? And is is just these actual etter then the specified t the same level of a few al signal component (due the. Therefore it seems at the more recently
Note t	hat this situatio	n does not o	occurs for cables <	12m.		Suggested	Remedy			
, PROP	<i>Response</i> POSED REJEC feedback from	, Т.	se Status W			70 dB	Hz> 1000 MHz for f<1000 MHz	000 <f<fmax mhz<="" td=""><td></td><td></td></f<fmax>		
			rovide a presentati ubmit a comment a		eeting with data to		OSED ACCEPT Participants are	Response Status W IN PRINCIPLE. requested to review this	proposal and dete	rmine if they agree with

Pa **160** Li **36** 

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C/ 149	SC 149.7.1.4	P 160	L <b>42</b>	# <u>7</u> 8	C/ 149	SC 149.7	1.5	P 161	L 28	# <u>8</u> 0	
len Bester	n, Gerrit	NXP Semicond	uctors		den Bester	n, Gerrit		NXP Semicon	ductors		
Comment 7	Туре <b>т</b> С	Comment Status D		Link Segment	Comment	Туре Т	Cor	nment Status D		Link Segmen	
make p not be design could b	perfect sense for a si desirable to mandate . In order to circumve	icy for coupling attenuation ngle-speed transceiver. Free the need for frequency-sent that and not overspecial link segment shall meet the	or multi-speed tr caling anti-alias fy channels gene	ansceivers, it might ing filters in the erally, a good solution	make s not be the des solutio highes	sense for a s desirable to sign. In orde n could be to t supported i	ngle-spee mplicitly m to circum require th	nandate the need for fr vent that and not overs at the link segment sh	r, for multi-spee equency-scalin pecify channel	d transceivers, it might anti-aliasing filters in generally, a good	
Suggested	Remedy				Suggested	Remedy					
For mu	after line 42: Ilti-speed transceiver ments for highest su	s the link segment shall n pported rate on the MDI.	neet the coupling	g attenuation	For mu	ılti-speed tra	nsceivers t	is sub-section: he link segment shall i he highest supported r	neet the screening attenuation ite on the MDI.		
Proposed I	Response Re	esponse Status 🛛 🛛 🛛 🛛 🛛 🛛 🖉			Proposed I	Response	Res	oonse Status 🛛 🛛 🛛 🛛 🛛 🖤			
PROP	OSED REJECT.				PROP	OSED REJE	CT.				
IEEE80	02.3 does not specify	/ implementation requirem	ients.		IEEE8	02.3 does no	t specify ir	nplementation requirer	uirements.		
C/ 149	SC 149.7.2.1	P 161	L <b>7</b>	# 43	C/ 149	SC 149.7	2	P 161	L <b>41</b>	# 41	
Zimmerma	n, George	CME Consultin	g/ADI, APL Gro	up, Aquantia, BMW, Ci	Zimmerma	n, George		CME Consulti	ng/ADI, APL G	roup, Aquantia, BMW, Ci	
Comment 7	Туре <b>т</b> С	Comment Status D		Link Segment	Comment	Туре Т	Cor	nment Status D		Link Segmen	
margin Models PSANE Measu PHY ne	from cabling measu for PSANEXT and F EXT and PSAFEXT in rement limits of 75 d oise impacts are to b	need to be set. Levels bas rements in mueller_3ch_0 PSAFEXT are based on cl n IEEE STd 802.3, which B loss are incorporated to re presented in and seder	05_0319.pdf are ause 113, the c go out to 2 GHz allow for repeat at_3ch_01_0419	proposed. osest model for able measurements 9.pdf, and	Annex segme <i>Suggested</i> delete	149A relates nts. <i>Remedy</i> "Annex 1494	to couplin	g attenuation, not to te	ed in Annex 149A and Annex 97B." nuation, not to test setups for coupling between li		
		along with a spreadsheet	for computation	5.	Proposed I	Response	Res	oonse Status W			
"PSAN , where Replac 20log1	equation 149-25 (PS/ IEXTloss(f) >= min (7 e f is the frequency in	PSAACRF loss), with "PS/ FMax_(149-26)"	1 <= f <= FMax	(149-25)	PROP	OSED ACCE	PT.				
Proposed I	5	esponse Status W									
PROP	OSED ACCEPT IN F	RINCIPLE.									
	nent the suggested re and style.	emedy with Editorial licens	se to implement	with the correct							

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© 149 SC 149.7.2.1 P161 L 51 # 42	C/ 149 SC 149.8.2.1 P163 L 20 # 74
immerman, George CME Consulting/ADI, APL Group, Aquantia, BM	/, Ci den Besten, Gerrit NXP Semiconductors
omment Type E Comment Status D Link Seg	ment Comment Type T Comment Status D
This subclause which is supposed to define PSANEXT stops short and is intertwined w the subclause for PSAACR-F. There are also references to the "type A" link segment of clause 97 which need to be removed, and there should be 2 figures, one for PSANEXT one for PSAACR-F, where there is currently only one figure - referenced in the text as f PSANEXT, and entitled as for PSAACR-F. (NOTE - THIS COMMENT DOES NOT ASSIGN THE VALUES FOR ALIEN CROSSTA BUT JUST FIXES THE EDITORIAL ISSUES) uggestedRemedy Move P162 lines 1 through 12 to be after "PSANEXT is illustrated in Figure 149-45." (P line 26), changing the reference to "NEXT" currently on lines 3 and 7 (equation 149-25) "ACR-F". Change title of Figure 149-45 from "PSAACR-F calculated using Equation (149-26)" to "PSANEXT loss calculated using Equation 149-25" At the end of the (new) PSAACR-F (bescription, add "PSAACR-F is illustrated in Figure 140.46 " and input new figure Tige PSAACR-F is a plaulated using Equation 140.26"	<ul> <li>differentiate requirements for different speeds to allow looser spec for 2.5Gbps and 5Gb</li> <li>The easiest way to achieve this is by scaling all frequency values by S except for the 1N lower bound.</li> <li>K,</li> <li>SuggestedRemedy</li> <li>Change:</li> <li>10&gt; 10S</li> <li>500&gt; 500S</li> <li>3000&gt; 3000S</li> </ul>
149-46." and insert new figure "PSAACR-F loss loss calculated using Equation 149-26" (figure will be autonumbered)         Delete all references to "type A" (currently 2 occurences on page 162)         oposed Response       Response Status       W	Proposed Response Response Status W PROPOSED REJECT. Most PHYs don't scale the return loss template with speed. It's a function of the cable's
(figure will be autonumbered) Delete all references to "type A" (currently 2 occurences on page 162)	
(figure will be autonumbered) Delete all references to "type A" (currently 2 occurences on page 162) roposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Implement the suggested remedy with Editorial license to implement with the correct	PROPOSED REJECT. Most PHYs don't scale the return loss template with speed. It's a function of the cable's
(figure will be autonumbered) Delete all references to "type A" (currently 2 occurences on page 162) oposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.	PROPOSED REJECT.         Most PHYs don't scale the return loss template with speed. It's a function of the cable's insertion loss.         Cl 149       SC 149.8.2.1       P163       L 20       # 82         den Besten, Gerrit       NXP Semiconductors
(figure will be autonumbered) Delete all references to "type A" (currently 2 occurences on page 162) oposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Implement the suggested remedy with Editorial license to implement with the correct	PROPOSED REJECT.         Most PHYs don't scale the return loss template with speed. It's a function of the cable's insertion loss.         C/ 149       SC 149.8.2.1       P163       L 20       # 82
(figure will be autonumbered) Delete all references to "type A" (currently 2 occurences on page 162) roposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Implement the suggested remedy with Editorial license to implement with the correct	PROPOSED REJECT.         Most PHYs don't scale the return loss template with speed. It's a function of the cable's insertion loss.         Cl 149       SC 149.8.2.1       P163       L 20       # 82         den Besten, Gerrit       NXP Semiconductors         Comment Type       T       Comment Status       D         I would like to make explicit that the low-frequency roll-up is there to enable PoDL, and that without PoDL the RL extends at 20dB downto 1MHz.
(figure will be autonumbered)         Delete all references to "type A" (currently 2 occurences on page 162)         roposed Response       Response Status         W         PROPOSED ACCEPT IN PRINCIPLE.         Implement the suggested remedy with Editorial license to implement with the correct	PROPOSED REJECT.         Most PHYs don't scale the return loss template with speed. It's a function of the cable's insertion loss.         Cl 149       SC 149.8.2.1       P 163       L 20       # 82         den Besten, Gerrit       NXP Semiconductors         Comment Type       T       Comment Status       D         I would like to make explicit that the low-frequency roll-up is there to enable PoDL, and
(figure will be autonumbered)         Delete all references to "type A" (currently 2 occurences on page 162)         roposed Response       Response Status         W         PROPOSED ACCEPT IN PRINCIPLE.         Implement the suggested remedy with Editorial license to implement with the correct	PROPOSED REJECT.         Most PHYs don't scale the return loss template with speed. It's a function of the cable's insertion loss.         C/ 149       SC 149.8.2.1       P163       L 20       # 82         den Besten, Gerrit       NXP Semiconductors         Comment Type       T       Comment Status       D         I would like to make explicit that the low-frequency roll-up is there to enable PoDL, and that without PoDL the RL extends at 20dB downto 1MHz.       SuggestedRemedy         Split the low-frequency spec in two options: with PoDL: 20-20*log(f/10S) dB       House of the second s

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C/ 149 SC	149.8.2.1	P 163	L <b>20</b>	# 76		C/ 149	SC 149.1	0	P 165	L <b>41</b>	# <u>1</u> 3	
en Besten, Gerr	rit	NXP Semi	conductors			Wienckow	ski, Natalie		General Moto	ors		
return loss w therefore doe loss and MDI propose to re SuggestedReme Formula 12-1	hich gets twi esn't worsen I return loss elax the MDI <i>dy</i> 10log(f/3000	Comment Status <b>D</b> gh frequency is tighter thice attenuated by inserti the RL/IL ratio. I think the are not well balanced for return loss and if possible) change into 10-10*log(	on loss. This return ne currently specifi r a cost optimal so le tighten the link f/3000S) for 300S	n loss component ied link segment retu blution. I would like to segment return loss. <f<3000s< td=""><td>irn D</td><td>when N Suggestea Delete Proposed</td><td>'s note to be WG ballot red dRemedy e Editor's note Response</td><td>removed prior quested.</td><td>se Status W</td><td colspan="2">Status <b>D</b> draft 2.0. Remove now so it isn't a change in D1.4 Status <b>W</b></td><td><i>Delay</i> D1.4</td></f<3000s<>	irn D	when N Suggestea Delete Proposed	's note to be WG ballot red dRemedy e Editor's note Response	removed prior quested.	se Status W	Status <b>D</b> draft 2.0. Remove now so it isn't a change in D1.4 Status <b>W</b>		<i>Delay</i> D1.4
roposed Respo	nse	)) change into 10-20*log Response Status W	(f/3000S) for 3000	)S <f<fmax< td=""><td></td><td></td><td>w at end of co needed.</td><td colspan="2">nment resolution and determine whether work on the Delay co</td><td>onstraint</td></f<fmax<>			w at end of co needed.	nment resolution and determine whether work on the Delay co		onstraint		
PROPOSED	REJECT.					C/ 149	SC 149 1	0	P166	/ 11	# 26	
Need data to The commen support this a	show this, r nter may cho	not opinion. ose to provide a presen pose to submit a comme P <b>163</b>		neeting with data to # 75			<i>Type</i> <b>T</b> g delay const	Comme	P 166 Axonne Inc. ent Status D	L 11	# 26	Delay
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al Layer Specifications and Management Parameters for Greater Than 1 Gb/s Automotive Ethernet 3rd Ta

Kumada, Taketo       Yazaki Corporation         Comment Type       T         Comment Status       W         PROPOSED REJECT.       S is defined in 149.1.1.         Cl 149       SC 149.5.2.4       P174       L1       # 24         Kumada, Taketo       Yazaki Corporation         Comment Type       T       Comment Status       D	# 25	L 29	P177	SC 149.7.1.1	C/ 149	# 23	L <b>48</b>	P 173	SC 149.5.2.4	C/ 149
Comment Type       T       Comment Status       D       Variables       Comment Type       T       Comment Status       D         The coefficient of Frequency which is "S" should be defined.       SuggestedRemedy       Like the above       SuggestedRemedy         SuggestedRemedy       Like the above       SuggestedRemedy       Like the above       SuggestedRemedy         The definition of "S" is the below.       S = 0.25 for 2.5GBASE-T1       S = 0.5 for 5GBASE-T1       S = 0										
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