

Barnette, James

Comment Type **TR** Comment Status **D**

Branches from LPI_IDLE_D, LPI_K, RX_WAKE, and RX_WTF, are not sufficiently specified when multiple conditions occur simultaneously.

Vitesse Semiconducto

SuggestedRemedy

Branches from LPI_IDLE_D near line 13:

On the branch from LPI_IDLE_D to RX_LINK_FAIL, change the condition from "rx_ts_timer_done" to "signal_detect = OK * rx_ts_timer_done". On the branch from LPI_IDLE_D to off-page node F, change the condition from "xmit != DATA * SUDI(![/K28.5/])" to "signal_detect = OK * !rx_ts_timer_done * xmit != DATA * SUDI(![/K28.5/])". On the branch from LPI_IDLE_D to LPI_K, change the condition from "xmit = DATA * SUDI + SUDI([/K28.5/])" to "signal_detect = OK * !rx_ts_timer_done * (xmit = DATA * SUDI + SUDI([/K28.5/])".

Branches from LPI_K near line 19:

On the branches from LPI_K to off-page nodes D, F, and C as well as the branch back to LP_IDLE_D, insert the condition "signal_detect = OK * <cond>" where <cond> is replaced by the previously-stated condition.

Branches from RX_WAKE near line 32:

On the branch to RX_WTF, insert the condition "signal_detect = OK * !(code_sync_status = OK * SUDI([/K28.5/]*EVEN)) * ..." into the condition for this branch. On the branch to RX_WAKE_DONE, insert the condition "signal_detect = OK * ..." into the condition for this branch.

Similarly, in branches from RX_WTF near line 36:

On the branch to RX_LINK_FAIL, insert the condition "signal_detect = OK * $!(code_sync_status = OK * SUDI([/K28.5/]*EVEN)) * ..."$ into the condition for this branch. On the branch to RX_WAKE_DONE, insert the condition "signal_detect = OK * ..." into the condition for this branch.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Use changes as suggested for branches from LPI_IDLE_D. Use the following for the other two:

Branches from RX_WAKE near line 32:

On the branch to RX_WTF, insert the condition "signal_detect = OK * ..." into the condition for this branch. On the branch to RX_WAKE_DONE, insert the condition "signal_detect = $OK * !rx_tw_timer_done * ...$ " into the condition for this branch.

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G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

Similarly, in branches from RX_WTF near line 36:

On the branch to RX_LINK_FAIL, insert the condition "signal_detect = OK * ..." into the condition for this branch. On the branch to RX_WAKE_DONE, insert the condition "signal_detect = OK * !rx_wf_timer_done * ..." into the condition for this branch.

C/ 36	SC 36.2.5.2.2	P83	L 44	# 2
Barnette, J	ames	Vitesse Semic	conducto	

Comment Type TR Comment Status D

When state RX_QUIET is to be left via transition (signal_detect = FAIL * rx_tq_timer_done) entering state RX_LINK_FAIL (via the "I" connector) signal "rx_quiet" is not set back to FALSE.

In case this condition (and transition) is ever met rx_quiet will never be set to FALSE again. A receiver would never be able to get data again since the receiver (e.g. a deserializer) would be powered down all the time - only a reset would help.

SuggestedRemedy

When entering state RX_LINK_FAIL signal "rx_quiet" must be reset (rx_quiet <= FALSE; this would be an additional assignment to the already existing assignment "rx_lpi_active <= FALSE").

Proposed Response Response Status W

PROPOSED ACCEPT.

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Comment Type TR Comment Status D

Figure 49-14 on page 165 and Figure 49-16 on page 169.

Behavior of SM in TX_LI in Figure 49-14 is independent of state in Figure 49-16. Sending of IDLE blocks during WAKE is not enforce. Need to ensure that state machines don't get unsynchronized. Should have predictable behavior from start of SLEEP to end of WAKE. Should unify behavior of 10GBASE-R and 10GBASE-T Tx state machines.

Incorporate TX_L and TX_WN states similar to Clause 55 Figure 55-15a.

SuggestedRemedy

Create variables:

 $tx_lpi_active:$ " A boolean variable set to TRUE when PHY is in LPI mode and set to FALSE when PHY is not in LPI mode."

tx_lpi_req: "A boolean variable set to TRUE when PHY client is requesting LPI and is otherwise set to FALSE."

Copy definitions of LPBLOCK_T and IBLOCK_T from Clause 55.

In Figure 49-14: In state TX_INIT add line "tx_lpi_req=FALSE" In state TX_LI add lines "tx_coded=LPBLOCK_T" "tx_lpi_req=TRUE" Delete transitions: TX_LI to TX_C TX_LI to TX_E

Add state TX_W with lines: "tx_lpi_req=FALSE" "tx_coded=IBLOCK_T"

Add transitions as follows:

TX_LI to TX_W: !(T_TYPE(tx_raw)=LI) TX_W to TX_C: !tx_lpi_active*(T_TYPE(tx_raw)=C) TX_W to TX_E: !tx_lpi_active*(T_TYPE(tx_raw)=(E+D+S+T))

In Figure 49-16... In TX_ACTIVE add line "tx_lpi_active=FALSE" In TX_SLEEP add line "tx_lpi_active=TRUE" Replace all instances each as follows: "T_TYPE(tx_raw)=LI" with "tx_lpi_req" "T_TYPE(tx_raw)!=LI" with "!tx_lpi_req"

Proposed Response Response Status W

PROPOSED REJECT.

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 U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

It is not clear that the two state machines need to be "synchronized." The transmit state machine will continue to send LPI or IDLE according to the state of the XGMII. The LPI transmit state machine will control tx_quiet for sleep, refresh and wake phases.

C/ 51	SC 52.2.6.1	P 176	L 6	# 4
Brown, Mat	t	Applied Micro (A	AMCC)	
Comment T	vpe T	Comment Status D		

Condition for energy_detect=OK is not specified.

SuggestedRemedy

Change description to:

The energy_detect parameter takes on one of two values: OK or FAIL. A value of OK indicates that the PMA detects a signal. A value of FAIL indicates that the PMA does not detect a signal. A value of OK does not guarantee that a valid signal is being presented to the PMA client.

Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.

See comment #5 for response.

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Cl 51 SC 922.E.1 P1rb P1rb< P1rb< P1rb< P1rb< P1rb< P1rb< P1rb< P1rb< P1rb< <td< th=""><th></th><th></th><th>0.470</th><th>1.0</th><th></th><th></th><th>00</th><th></th><th></th><th>0</th><th>1</th><th>" -</th></td<>			0.470	1.0			00			0	1	" -
Comment Type T Comment Status D Condition for energy_detect=OK is not specified. Nor is it defined where the states comfrom. Comment Type T Comment Status D Since FMA_ENERGY_DETECT.indication is identical to PMD_SIGNAL.indication, the immediate energy_detect variable/signal is not required. Comment Type T Comment Status D Suggested/Remedy Change description of PMA_ENERGY_DETECT.indication(energy_detect) to: "The energy_detect parametists that PMD does not detect a signal. A value of OK does not detect a signal. A value of OK does not quera the PMD detects a signal. A value of ALL indication (SIGNAL_OK) primitive is received. Suggested/Remedy Change when generated as follows: The PMA generates this primitive whenever the PMD_SIGNAL.indication(SIGNAL_OK) primitive is received. Response Status W PROPOSED ACCEPT IN PRINCIPLE. The condition for OK needs stating and the relation between signal_ok and energy_detect to the SIGNAL_OK received from the PMD, a value of TALE sindicates that the PMD detests that the PMD siGNAL_Indication is indicates that the PMD. SiGNALLindication is indicates that the PMD siGNAL_INC (X received from the PMD, a value of TALE sindicates that the PMD siGNAL_Indicates that the PMD siGNAL_INC (X received from the PMD, a value of TALE sindicates that the PMD siGNAL_INC (X received from the PMD, a value of TALE denergy the C_PI reasent to use of the C_PI reasent to capse the paramet signal of a value of TALE sindicates that the PMD siGNAL_Indication is indicates that the PMD siGNAL_INC (X received from the PMD, a value of TALE denergy the C_PI reasent to the PHY is transmitting sleep, alert, wake or quet referesh signalingn). Commen	Brown, Matt	52.2.6.1	P176 Applied Micro	26 (AMCC)	# 5	C/ 55 Brown, Ma	tt	00	ŀ	P Applied Micro	L o (AMCC)	# [/
Condition for energy_detect=OK is not specified. Nor is it defined where the states come from. The phrase "LPI transmit mode" is used to describe or specify two different spans. In one context, it refers to the time from the beginning of SLEEP to the second on the XGMI. Suggested/Remedy Change the shart set signal for the PMD decess as signal. A value of OK for the Addition of the phylop second seco	Comment Type	тС	omment Status D			Comment	Туре	т	Comment St	atus D		
SuggestedRemedy Change description of PMA_ENERGY_DETECT.indication(energy_detect) to: The energy_detect parameter takes on one of two values OK or FAIL as indicated by PMD_SIGNAL.indication(SIGNAL_OK). A value of OK indicates that the PMD detects a signal. A value of TAU indicates that the PMD detect a signal. A value of TAU indicates that the PMD_SIGNAL.indication(SIGNAL_OK), primitive is received. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. The condition for OK needs stating and the relation between signal_ok and energy_detect signal from the PMD. Avalue of TAU indication SIGNAL_OK received signal from the PMD. SIGNAL-indication SIGNAL_OK received signal from the PMD. SIGNAL-indication is indicating OK A value of FAL SE indicates that the PMA is receiving a signal from the PMD. SIGNAL-indication SIGNAL_OK received from the PMD. SIGNAL-indication Signal from the PMD. SIGNAL-indication Sindication GNAL indicates that the PMA is receiving a signal from the PMD. SIGNAL-indication SIGNAL_OK received signal from the PMD. SIGNAL-indication SIGNAL_OK received signal from the PMD. SIGNAL-indication GNAL-indicates that is peak is receiving a signal from the PMD. SIGNAL-indication GNAL-indicates that a value of FAL SE indicates that is being presented to the PMA client. CI 55 SC 551.3 P179 L49 # SuggestedRemedy Replace: Following these frames the link partner ceases transmission and is quiet. With: SuggestedRemedy Replace: Following these frames the link partner beings a QUIET/REFRESH cycle, where the link is normally quiet. With:	Condition fo from. Since PMA_ intermediate	r energy_detect: _ENERGY_DET	=OK is not specified. No ECT.indication is identic variable/signal is not rea	or is it defined w cal to PMD_SIG quired.	here the states come	The ph contex it refer also de Suggesteo	nrase "L it, it refe s to the escribed	PI transfers to the time from the start of t	mit mode" is used time from the be om the end of SLE ting when LI is fir	d to describe ginning of S EP to the be st received o	e or specify two LEEP to the en eginning of ALE on the XGMII.	different spans. In one d of WAKE. In another, RT. The starting point is
Change description of PMA_ENERGY_DETECT indication(nergy_detect) to:: The energy_detect parameter takes on one of two values GN or FAIL is a sindcated by PMD_SIGNAL.indication(SIGNAL_OK). A value of OK indicates that the PMD detects a signal. A value of FAIL indicates that the PMD detects a signal. A value of CM and the PMA client. Change when generated as follows: The energy_detect parameter takes availed to the PMA_SIGNAL_indication(SIGNAL_OK) primitive is received. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. The condition for OK needs stating and the relation between signal_Ok and energy_detect should be stated. However the energy_detect is boolean. Change the paragraph as follows: The energy_detect parameter is boolean and reflects the state of the SIGNAL_OK received from the PMD. SIGNAL indicates that the PMA is receiving a signal from the PMD, reflecting that PMD, stolects that a value of TRUE does not guarantee that a value of the PMD r	SuggestedReme	edy				Create	a unia	., ue phras	se to describe ead	ch epoch and	d replace the ph	rases appropriately.
not guarantee that a valid signal is being presented to the PMA client."Change when generated as follows:The PMA generates this primitive whenever the PMD_SIGNAL.indication(SIGNAL_OK)primitive is received.Proposed ResponseResponse Status WPROPOSED ACCEPT IN PRINCIPLE.See also comment #4The endition for K-dest stating and the relation between signal_ok and energy_detectshould be stated. However the energy_detect is boolean. Change the paragraph as follows:The endition for MPMD_SIGNAL.indication g signal from the SIGNAL_OK receivedfrom the PMD. A value of TRUE indicates that the PMA is root receiving a signal from the PMD_SIGNAL.indication is indicating FAIL. Note that a value of TRUE does not guarantee that a valid signal is beingpresented to the PMA client.Cf 55SC 55.1.3P179L49I'ink system' should be "link partner system"SuggestedRemedyChange "local and link system" to "local and link partner system"SuggestedRemedyChange "local and link system" to "local and link partner system"	Change description of PMA_ENERGY_DETECT.indication(energy_detect) to: "The energy_detect parameter takes on one of two values OK or FAIL as indicated by PMD_SIGNAL.indication(SIGNAL_OK). A value of OK indicates that the PMD detects a signal. A value of FAIL indicates that the PMD does not detect a signal. A value of OK does						Respon OSED	ase ACCEPT	Response Sta IN PRINCIPLE.	atus W		
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Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. See also comment #4 The condition for OK needs stating and the relation between signal_ok and energy_detect should be stated. However the energy_detect is boolean. Change the paragraph as follows: The energy_detect parameter is boolean and reflects the state of the SIGNAL_OK received from the PMD. states that the PMA is receiving a signal from the PMD, reflecting that PMD_SIGNAL.indication is indicating FAIL. Note that a value of TRUE does not guarantee that a valid signal is being presented to the PMA client. C/ 55 SC 55.1.3 P182 L 35 # § C/ 55 SC 55.1.3 P179 L 49 # § SuggestedRemedy SuggestedRemedy Comment Type E Comment Status D SuggestedRemedy SuggestedRemedy "ink system" should be "link system" SuggestedRemedy Response Response Response Status W PROPOSED ACCEPT. Proposed Response Response Response Status W	The PMA ge primitive is r	en generated as enerates this prir received.	nitive whenever the PM	D_SIGNAL.indi	cation(SIGNAL_OK)	In othe receive	er cases ed on th	s the text ne XGMI	t states that the _ I; this is accurate	transition_ to	o the LPI tx mod	de begins when LI is first
The condition for OK needs stating and the relation between signal_ok and energy_detect should be stated. However the energy_detect is boolean. Change the paragraph as follows: the nergy_detect parameter is boolean and reflects the state of the SIGNAL_OK received from the PMD. A value of TRUE indicates that the PMA is receiving a signal from the PMD, reflecting that PMD_SIGNAL.indication is indicating OK. A value of FALSE indicates that the PMA signal from the PMD, setting that PMD_SIGNAL.indication is indicating SAL. Note that a value of TRUE does not guarantee that a valid signal is being presented to the PMA client. The nergy_detect from the PMD, reflecting that PMD_SIGNAL.indication is indicating SAL. Note that a value of TRUE does not guarantee that a valid signal is being presented to the PMA client. The nergy_detect parameter is boolean and information is indicating SAL. Note that a value of TRUE does not guarantee that a valid signal is being presented to the PMA client. The nergy_detect parameter is boolean and information is indicating SAL. Note that a value of TRUE does not guarantee that a valid signal is being presented to the PMA client. The nergy_detect parameter is boolean and information is indication is indication is indication is indication is indicating SAL. Note that a value of TRUE does not guarantee that a value of the SAL is the set of the SIGNAL.indication is indicated that parameter is boolean and information is indicated to the PMA direct. The SIGNAL indication is indicates that the PMA is the the parameter is boolean. Th	Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. See also comment #4					Chang tx_lpi_ LPI tra refresh	e the tx active i nsmit n n signal	<_lpi_acti s TRUE node (I.e ing).	ive and tx_lpi_qr_ during the LPI tra e. at any time whe	_active defini ansmit mode on the PHY is	itions as follows and during trar s transmitting sl	:: sitions to and from the eep, alert, wake or quiet-
The energy_detect parameter is boolean and reflects the state of the SIGNAL_OK received from the PMD. A value of TRUE indicates that the PMA is receiving a signal from the PMD, reflecting that PMD_SIGNAL.indication is indicating OK. A value of FALSE indicates that the PMA is not receiving a signal from the PMD, reflecting that PMD_SIGNAL.indication is indicating OK. A value of FALSE indicates that the PMA is not receiving a signal from the PMD, reflecting that PMD_SIGNAL.indication is indicating TAIL. Note that a value of TRUE does not guarantee that a valid signal is being presented to the PMA client. CI 55 SC 55.1.3 P179 L49 # 6 Brown, Matt Applied Micro (AMCC) Comment Type E Comment Status D "link system" should be "link partner system" SuggestedRemedy Change "local and link system" to "local and link partner system"	The condition should be st	on for OK needs tated. However t	stating and the relation he energy_detect is boo	between signal_ blean. Change tl	_ok and energy_detect ne paragraph as follows:	tx_lpi_	gr_activ	ve is TRI	UE during the LP	I transmit mo	ode [l.e. during	quiet-refresh signaling].
indicating FAIL. Note that a value of TRUE does not guarantee that a valid signal is being presented to the PMA client. Suggested Remedy Cl 55 SC 55.1.3 P179 L49 # 6 Brown, Matt Applied Micro (AMCC) Following these frames the link partner ceases transmission and is quiet. Comment Type E Comment Status D "link system" should be "link partner system" Following these frames the link partner begins a QUIET/REFRESH cycle, where the link is normally quiet. Suggested Remedy Change "local and link system" to "local and link partner system" Proposed Response Response Status W	The energy from the PN reflecting the the PMA is a	_detect paramete ID. A value of TF at PMD_SIGNAI not receiving a s	er is boolean and reflect RUE indicates that the F indication is indicating ignal from the PMD, ref	ts the state of th PMA is receiving OK. A value of lecting that PME	e SIGNAL_OK received a signal from the PMD, FALSE indicates that D_SIGNAL indication is	CI 55 Brown, Ma Comment SLEEF	tt <i>Type</i> May b	55.1.33 T be immed	ا Comment St diately followed b	P182 Applied Micro atus D y either REF	L 35 o (AMCC) RESH or QUIE	# <u>8</u>
C/ 55 SC 55.1.3 P179 L49 # 6 Brown, Matt Applied Micro (AMCC) # 6 Following these frames the link partner ceases transmission and is quiet. Comment Type E Comment Status D With: "link system" should be "link partner system" Following these frames the link partner begins a QUIET/REFRESH cycle, where the link is normally quiet. SuggestedRemedy Change "local and link system" to "local and link partner system" Proposed Response Response Status W	presented to	AIL. Note that a to the PMA client.	value of TRUE does no	t guarantee that	a valid signal is being	Suggestea	Remea	ly	-			
"link system" should be "link partner system" Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT. Change "local and link system" to "local and link partner system" PROPOSED ACCEPT.	Cl 55 SC 55.1.3 P179 L49 # 6 Brown, Matt Applied Micro (AMCC) Comment Type F Comment Status D					Replace: Following these frames the link partner ceases transmission and is quiet. With: Following these frames the link partner begins a QUIET/REFRESH cycle, where the link i					quiet. I cycle, where the link is	
SuggestedRemedy PROPOSED ACCEPT. Change "local and link system" to "local and link partner system"	"link system	" should be "link	partner system"			Proposed	Respon	1. 1900	Posponso St	otus M		
onango loour and init oyotom to loour and init patition system	SuggestedReme	edy cal and link syste	m" to "local and link pa	rtner system"		PROP	OSED	ACCEPT	пезропзе Sta Г.			
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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 U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

Cl 55	SC 55.2.2.10.1	P185	L 45	# 9	Cl 55	SC 55.3.2.2.2	21	P190	L4	# 12		
Brown, Ivian			AMCC)		Drown, Iviai				(AMCC)			
Comment I	ype T Comme	ent Status D	anyo that it take	a on the value in SM	Comment I	ype T freeb onde wher	Comment S	itatus D ook in dotooto	d Thora ia na l	langar black arror		
in Figur	e 16 (TRUE or FALSE) an CTIVE.	d defines to possible	e values as ACT	TVE and	quiet-refresh ends when any non-Li block is detected. There is no longer block error detection.							
 SuaaestedF	Remedv				Suggested							
Change "ACTIVE" to "TRUE". Change "NOT ACTIVE" to "FALSE".						iet-refresh cycle	e is repeated ur	ntil IDLE codev	vords are dete	cted at the XGMII."		
Proposed R	Response Respon	se Status W			"The qu XGMII.	iet-refresh cycle	e is repeated ur	ntil LP_IDLE bl	ocks are no lo	nger detected at the		
					Delete:							
C/ 55 Brown, Matt	SC 55.3.2.2.9	P 188 Applied Micro (L 18 AMCC)	# 10	"The PHY will also transition back to the normal operation mode if an error condition occurs. This error condition is defined as the detection of any characters other than							
Comment T	ype E Comm	ent Status D										
For con	sistency, change /LI/ name	e to match name in	Clause 49 (page	e 160, line 9).	Change			taa tha transiti	on from I DI m	ada ta narmal mada hu		
SuggestedF Change Alternat	Remedy e "lp_idle" to "LPI". tely, change Clause 49 "LF	emedy "Ip_idle" to "LPI". Wy change Clause 49 "I PI" to "Ip_idle".					sending a wake signal which is composed of Ipi_wake_time LDPC frames composed of IDLE 64B/65B blocks if an error condition has not been detected." To:					
Proposed R PROPC	Response Respon	se Status W PLE.			"After the alert signal the PCS completes the transition from LPI mode to normal mode I sending a wake signal which is composed of lpi_wake_time LDPC frames composed of IDLE 64B/65B blocks."					ode to normal mode by frames composed of		
Propos	e we make the change in 4	19.			Delete:	ka aignal aantai	ing LDDC from		of local fault C			
C/ 55	SC 55.3.2.2.21	P189	L 40	# 11	blocks	f an error conditi	ion has been d	etected."		+D/00D		
Brown, Mat	t	Applied Micro (AMCC)		Proposed F	esponse	Response Si	tatus W				
Comment T	ype T Comm	ent Status D			PROPO	SED ACCEPT.						
The lpi_ control	_tx_mode is ignored specif state diagram (Figure 55.2	ically when the is no 4).	ot in the PCS_D	ata state in the PHY								
Suggested	Remedy											
Change												
"During to	PMA training the lpi_tx_m	ode variable is igno	red."									
"During	PMA training (PHY is not	in PCS_Data state)	the lpi_tx_mode	variable is ignored."								
Proposed R	Response Respon	se Status W										
PROPC	SED ACCEPT IN PRINC	PLE.										
"When	the PHY is not in the PCS	_Data state the lpi_t	x_mode variable	e is ignored."								

C/ 55 Brown, Matt	SC 55.3.2.3	P 190 Applied Micro	L 38 (AMCC)	# 13	<i>Cl</i> 55 Brown, Ma	SC 55.3.4a . tt	3 P1 Appli	94 ed Micro (A	L 20 MCC)	# 16
Comment T Change	<i>ype</i> E PCS_Status=C	Comment Status D K is asserted" to "PCS_State	us is set to OK".		Comment Use of until st	<i>Type</i> T timer state in g	<i>Comment Status</i> lobal boolean express	D sion is a bit	messy since	it's state is ambiguous
Note the PHY co definition SuggestedF Change Change Proposed R PROPC	at PCS_Status pr ntrol state diagra in (section 55.3.6 Remedy PPCS_Status=C instance on Pag Response DSED ACCEPT.	rimitive uses OK and NOT_C im (Figure 55-24 in 802.3-20 5.1 in 802.3-2008) specifies v OK is asserted" to "PCS_Stati ge 191, line 6, as well. <i>Response Status</i> W	₩AY. The pcs_ D8). However, th alues TRUE and us is set to OK".	status variable in the e pcs_status variable d FALSE.	Suggested Create In figu in TX_ in SEN Create "tx_lpi ALER	Remedy variable "tx_lp re 55-16b NORMAL and ID_ALERT add variable defini _alert_active T signaling. Set	_alert_active". SEND_WAKE add line line "tx_lpi_alert_activion A boolean variable that false otherwise."	e "tx_lpi_ale ve=TRUE" at is set true	ert_active=FA	LSE" TY is transmitting
Cl 55 Brown, Matt Comment T rx_lpi_r SuggestedF Remove Proposed R PROPC	SC 55.3.4a.3 Type T eq variable no lor Remedy e definition for rx_ Response DSED ACCEPT.	P 194 Applied Micro Comment Status D nger used _lpi_req. Response Status W	<i>L</i> 20 (AMCC)	# 14	On pa "tx_lpi Proposed PROP CI 55 Brown, Ma Comment Use of until st	ge 194 line 40 a _alert_active". Response OSED ACCEP SC 55.3.4a tt Type T timer state in g arted the first ti	nd 53 replace "!tx_lpi Response Status F. 3 P1 3 P1 Appli Comment Status Iobal boolean express ne.	_qr_active* W 94 ed Micro (A X sion is a bit	<pre>!!pi_tx_alert_t L 20 .MCC) messy since</pre>	# 17
Cl 55 Brown, Matt Comment T tx_lpi_e SuggestedF Remove Proposed R PROPC	SC 55.3.4a.3 Type T error variable no le Remedy e definition for tx_ Response DSED ACCEPT.	P 194 Applied Micro Comment Status D onger used _lpi_error. Response Status W	<i>L</i> 20 (AMCC)	# <u>15</u>	Suggested Create In figu in TX_ in SEN Create "tx_lpi ALER" On par "tx_lpi Proposed Same	Remedy e variable "tx_lp re 55-16b NORMAL and ID_ALERT add e variable defini _alert_active F signaling. Set ge 194 line 40 _alert_active". Response as #16?	_alert_active". SEND_WAKE add line line "tx_lpi_alert_activion A boolean variable the false otherwise." and 53 replace "!tx_lpi <i>Response Status</i>	e "tx_lpi_ale ve=TRUE" at is set true _qr_active* W	ert_active=FA	LSE" IY is transmitting ime_done" with

CI 55	SC 55.3.5.2.3	P 195	L 23	# 18	C/ 55	SC 55.3.5.2.5	P 197	L 23	# 20			
Brown, Mat	tt	Applied Micro (A	MCC)		Brown, Matt		Applied Micro	o (AMCC)				
Comment 7	Туре Т	Comment Status D			Comment Typ	e T	Comment Status D					
Timer v have se	values for LPI stat ome tolerance.	es must be precise number of	symbols in leng	gth. Often timers	Error cour wake erro	nter is readible or counter	e via MDIO register 3.22 spe	ecified in sub-cl	ause 45.2.3.9b EEE			
Suggested	Remedy				SuggestedRe	medy						
Line 23 Chang Line 27	3 e "equal to 9 LDP 7	C frame periods" to "equal to e	exactly 9 LDPC	frames"	Add text " lpi_rxw_e counter is	The value is h rr_cnt is availa reset to zero	eld at all ones in the case o able in MDIO register 3.22 s when read."	f overflow. The pecified in sub-	current value of clause 45.2.3.9b. The			
Change Lines 3	e "equal to 4 LDP	C frame periods" to "equal to e	exactly 4 LDPC	frames"	Proposed Res	sponse	Response Status W					
Change "equal to lpi_wake_time LDPC frame periods" to "equal to exactly lpi_wake_time LDPC frames"					PROPOS	ED ACCEPT	N PRINCIPLE.					
Proposed F PROP	Response OSED REJECT.	Response Status W			Add text The counter is reflected in register 3.22(see 45.2.3.9b). This text is identical to that used in Clause 36. Specifying the reset/saturation functionality here would be redundant.							
Stating	that the timer per	riod equals a value implies exa	actly equals; no	tolerance is specified.	C/ 55	SC 55.3.5.4	P 198	L 4	# 21			
CI 55	SC 55 2 5 2 2	P105	/ 22	# 10	Brown, Matt		Applied Micro	o (AMCC)				
Brown. Mat	tt	Applied Micro (A	MCC)	# 19	Comment Typ	e T	Comment Status D					
Comment	Туре Е	Comment Status D	/		Figure 55-14. Use of timer state in global boolean expression is messy. Consider replacing reference to timer state with new variable rx_lpi_wake.							
Gramm	har				SuggestedRe	medy						
Suggested Change	<i>Remedy</i> e "recever send II	DLE" to "receiver sends IDLE".			Create va In figure 5	riable "rx_lpi_ 5-16a	wake".					
Proposed Response Response Status W PROPOSED ACCEPT.				in RX_W add line "rx_lpi_wake=TRUE" Create variable definition "rx_lpi_wake A boolean variable that is set true when the PHY Rx is in the WAKE state and sending IDLE to the XGMII. Set false otherwise."								
					Delete no	te in Figure 55	5-14.					
					Proposed Res PROPOS	sponse ED ACCEPT.	Response Status W					

C/ 55 SC 55.3.5.4 Brown, Matt	P 197 Applied Micro	L 32 (AMCC)	# 22	C/ 55 Brown, Ma	SC 55.3.5.4	P 203 Applied Micro	L 7 o (AMCC)	# 25
Comment Type T reference to TX_L shou	Comment Status D			Comment Note in	<i>Type</i> T n upper right corr	Comment Status D ner of Figure 55-16b is not re	equired.	
SuggestedRemedy Replace TX_L with RX	_L.			Suggested Remov	<i>IRemedy</i> ve note.			
Proposed Response PROPOSED ACCEPT.	Response Status W			Proposed PROP	Response OSED ACCEPT.	Response Status W		
Cl 55 SC 55.3.5.4 Brown, Matt	P 201 Applied Micro	L 5 (AMCC)	# 23	C/ 55 Brown, Ma	SC 55.4.2.2	P 205 Applied Micro	L 10 o (AMCC)	# 26
Comment Type T In Figure 55-16 and Fig	Comment Status D Jure 55-16a, the variable rx_I	pi_active is nev	<i>rx_lpi_active init</i> er initialized to FALSE.	Comment Since should	<i>Type</i> T this section spec be moved here	Comment Status D ifies the timing requirements from Section 55.3.4a.1 (pag	s, the requiremen e 191, line 51) o	nt for slave loop timing r re-stated here.
In Figure 55-16 RX IN	IT state add line "rx Ini activ	e=FALSE"		Suggested	Remedy			
Proposed Response PROPOSED ACCEPT.	Response Status W			Add lir shall b sectior	ne from 55.3.4a.1 e enabled on the n.	. "An EEE capable PHY sha slave PHY." Maybe statem	all support loop t ent in 44.3.4a.1	iming and loop timing should refer to this
0				Proposed	Response	Response Status W		
C/ 55 SC 55.3.5.4 Brown, Matt	P 203 Applied Micro	L 7 (AMCC)	# 24	PROP Add lir shall b	OSED ACCEPT. the from 55.3.4a.1 the enabled on the	. "An EEE capable PHY sha slave PHY."	all support loop t	iming and loop timing
Comment Type TR	Comment Status D	(/		C/ 55	SC 55.3.5.4	P 202	L6	# 27
SLEEP state should no	t begin until beginning of frar	ne.		Brown, Ma	itt	Applied Micro	o (AMCC)	
SuggestedRemedy	0 0 0			Comment	Type T	Comment Status D		
Change transition criter	ia from TX_NORMAL to SEN	ID_SLEEP to		Figure	55-16a. Note in	upper right is incorrect. The	entire diagram i	s required for EEE.
"tx_lpi_req*ldpc_frame	_done".			Suggested	Remedy			
Proposed Response	Response Status W			Remov EEE c	ve note or chang apability."	e to "The portion of the state	e machine is this	figure is required for
PROPOSED ACCEPT.				Proposed	Response	Response Status W		
				PROP	OSED ACCEPT.			
				Use "I with th	t is required to im e EEE capability	plement the portion of the s	tate machine in	this figure for PHYs

C/ 55 SC 55.3.5.4 P 202 L 26 # 28 Brown, Matt Applied Micro (AMCC) Applied Micro (AMCC) # 28	C/ 74 SC 74.5.1 P 231 L 19 # 31 Brown, Matt Applied Micro (AMCC) Image: Comparison of the second sec					
Comment Type T Comment Status D	Comment Type E Comment Status D					
Figure 55-16a. RX_WE is a zero time state.	Missing underscore in names. Inconsistent with other instances.					
SuggestedRemedy	SuggestedRemedy					
Add note the figure that RX_WE is a zero-time state.						
Proposed Response Response Status W PROPOSED REJECT.	FEC_RXQUIET to FEC_RX_QUIET FEC_LPIACTIVE to FEC_LPI_ACTIVE					
This doesn't seem neccesary. I can't see it being done anywhere else.	Make similar changes through sections where necessary.					
C/ 55 P179 L 9 # 29 Brown, Matt Applied Micro (AMCC)	Proposed Response Response Status W PROPOSED ACCEPT.					
Comment Type T Comment Status D	C/ 74 SC 74.5.1 P231 L 32 # 32					
The referenced adhoc proposal recommends inclusion of counters to track the number of	Brown, Matt Applied Micro (AMCC)					
times a fast retrain is invoked. By the same logic, a counter for normal retrains is also	Comment Type T Comment Status D					
Suggested Remedy	rx_lpi_active is not sent to lower layers					
Create a new counter normal_retrain_counter. Definition: "Counts the number of times a normal re-train occurs. The counter is increment each time the SILENT state in Figure 55-24 is entered. The counter is reset when read or when entering the DISABLE_10GBASE-T_TRANSMITTER state in Figure 55-24. The counter is readable in MDIO register x.x."	SuggestedRemedy Change "rx_quiet", tx_quiet and rx_lpi_active to control" to "rx_quiet and tx_quiet to control".					
Proposed Response Response Status W	Proposed Response Response Status W					
PROPOSED REJECT.	PROPOSED ACCEPT.					
This seems out of scope for 802.3az. C/ 55 SC 55.3.4a.3 P193 L 27 # 30	C/ 74 SC 74.5.1.4 P 231 L 43 # 33 Brown, Matt Applied Micro (AMCC) Applied Micro (AMCC) <t< td=""></t<>					
Brown, Matt Applied Micro (AMCC)	Comment Type T Comment Status D					
Comment Type T Comment Status D	energy_detect is not a boolean variable is has values OK and FAIL					
clarify "long training sequence"	SuggestedRemedy					
SuggestedRemedy Replace "long training sequence" with "training sequence without periodic re-initialization". Proposed Response Response Status W	Redefine as follows: "The energy_detect parameter takes on one of two values OK or FAIL as indicated by PMA_SIGNAL.indication(SIGNAL_OK). A value of OK indicates that the PMD detects a signal. A value of FAIL indicates that the PMD does not detect a signal. A value of OK doo not guarantee that a valid signal is being presented to the PMA client."					
	Proposed Response Response Status W					

Proposed	responses
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C/ 74 SC 74.5.1.5 P 232 L 10 # 34 Brown, Matt Applied Micro (AMCC) # 34	C/ 74 SC 74.5.1.6 P 232 L 27 # 36 Brown, Matt Applied Micro (AMCC) 4 36
Comment Type E Comment Status D Re-word.	Comment Type E Comment Status D RE-word.
SuggestedRemedy Change definition to: The rx_lpi_active parameter is a boolean variable sent from the PCS that is set to TRUE when LPI mode is active at the receiver and set to FALSE otherwise. Proposed Response Response Status W PROPOSED ACCEPT.	SuggestedRemedy Change: "The rx_quiet parameter can take on one of two values: TRUE or FALSE. A boolean variable sent from the PCS" To: "The rx_quiet parameter is a boolean variable sent from the PCS"
Cl 74 SC 74.5.1.5.2 P 232 L 19 # 35 Brown, Matt Applied Micro (AMCC) # 35	PROPOSED ACCEPT IN PRINCIPLE. According to Pillai_1109_01.pdf and resolution for comment #85 rx_quiet becomes
Effect of rx_lpi_active is to enable use of fast block lock. SuggestedRemedy Change definition to: When rx_lpi_active is TRUE, fast block lock as specified in 74.5.1.8 will be used to quickly determine the FEC start of frame during EEE REFRESH or WAKE. When rx_lpi_active is FALSE_fast block lock will not be used	"the rx_mode parameter is a variable sent from the PCS. It is set to QUIET while the receiver is in the RX_QUIET state and is set to DATA otherwise" C/ 74 SC 74.5.1.6.2 P 232 L 38 # 37 Brown, Matt Applied Micro (AMCC)
Proposed Response Response Status W PROPOSED ACCEPT.	Comment Type T Comment Status D rx_quiet effect of receipt looks like PCS definition. Specify FEC behavior. SuggestedRemedy Change definition to: When rx_quiet is TRUE the FEC decoder logic may deactivate functional blocks to conserve energy. When rx_quiet is FALSE the FEC decoder logic operate normally. The value rx_quiet is passed to the client layer through PMA_RX_QUIET(rx_quiet).request. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE.
	Chaning the suggested remedy to accommodate rx_mode instead of rx_quiet When rx_mode is QUIET the FEC decoder logic may deactivate functional blocks to conserve energy. When rx_mode is DATA the FEC decoder logic operate normally. The value rx_mode is passed to the client layer

value rx_mode is passed to the client layer through PMA_RX_MODE(rx_mode).request.

L So n, Matt	C 74.5.1.8		P 233 Applied Micro	L 8 D (AMCC)	# 40
<i>ment Type</i> LIP is an a	T action, mov	<i>Commei</i> ing the cand	nt Status D idate start of bloo	ck location.	
Iso, pull th estedRem change par vhen rx_lp ne FEC sta ock is locke andidate s lock lock d chieve lock ependent a pelete secco osed Resp ROPOSEI	e 2nd sente edy ragraph to: i_active is 1 art of block l ed, the dete tart of block letermined k without re and outside ond sentenc onse D ACCEPT	TRUE, FEC ocation base rmined start (location un the correct s quiring subs the scope of the scope of the scope of the scope of Response IN PRINCIE	ollowing paragra Rapid block lock ed on the determ of block locatior til the rapid block tart of block loca sequent slips. The of this standard. aph on line 22. e Status W PLE.	ph into this para mechanism will ninistic pattern. \ is used as the lock loses lock tion, the FEC loc e rapid lock algo	Igraph. Attempt to determine When the rapid block FEC lock state diagram Assuming the rapid lock state diagram will prithm is implementation
vnen rx_ip nechanism ocation is u apid block lock locatid lips. The ra tandard.	Lactive is 1 will attemp ic pattern. V used as the lock loses I on, the FEC apid lock algorithms and pond sentence	t to determin Vhen the rap FEC lock st ock. Assumi clock state o gorithm is im	_mode is set to in the FEC start of block lock is lead ate diagram cance ing the rapid bloc diagram will achie aplementation de aph on line 22.	DATA, FEC Ra of block location ocked, the deter didate start of bl k lock determin eve lock without pendent and ou	In block lock based on the mined start of block ock location until the ed the correct start of requiring subsequent itside the scope of this

conserve energy. When tx_mode is DATA the FEC encoder logic operate normally. The value tx_mode is passed to the client layer through PMA_TX_MODE(tx_mode).request.

CI 74 SC 74.5.1.8 P233 L22 # 41	C/ 47 SC 47.1.6 P140 L 41 # 44						
Brown, Matt Applied Micro (AMCC)	Brown, Matt Applied Micro (AMCC)						
Comment Type T Comment Status D	Comment Type TR Comment Status D						
The note is talking both about transmit injection and receiver lock detection. The note is out of place here and should be in the PCS Tx section (Clause 49).	A mode is required where a XAUI link supports LPI signalling, but does not support the QUIET/REFRESH cycling.						
SuggestedRemedy	SuggestedRemedy						
Delete first line or move it to sub-clause 49.2.6. Delete 2nd line and move it to previous paragraph.	Specify an MDIO bit field XAUI_EEE_QUIET_ENABLE to determine if QUIET state is support. If TRUE, transmit will turn off tx_mode is QUIET. If FALSE, transmit will not turn off if tx_mode is QUIET.						
Proposed Response Response Status W	Proposed Response Response Status W						
PROPOSED ACCEPT IN PRINCIPLE.	PROPOSED ACCEPT IN PRINCIPLE.						
First line is already mentioned in sub-clause 49.2.6 in different words. It is up to the Clause							
49 editor to change the suggested remedy.	This is already defined in Clause 45 - see register bits 4.20.0 (capability) and 4.0.9 (enable).						
2nd line is covered in comment #40.	This needs to be reflected in the text of this clause:						
C/ 74 SC 74.5.1.8 P233 L35 # 42	An XGMII Extender with the optional Energy Efficient Ethernet (EEE) capability may enter a low power						
Brown, Matt Applied Micro (AMCC)	state to conserve energy during periods of low link utilization. ** The ability to support						
Comment Type T Comment Status D	transition to a low power state is indicated by register 4.20.0 (for a PHY XS) or 5.20.0 (for a PTF XS)						
incorrect reference to FEC_SIGNAL.indication also incorrect capitalization	DTE XS). Transition to the low power state is enabled by register 4.0.9 (for a PHY XS) or 5.20.0 (for a DTE XS). **The assertion of Low Power Idle (LPI) at the						
Suggested Demody	XGMII is encoded in the transmitted symbols. Detection of LPI encoding in the received						
Change: "FEC_SIGNAL.indication(RX_LPI_ACTIVE)" to	symbols is indicated as LPI at the XGMII. When LPI is received, an Energy Efficient XGMII Extender sends						
Proposed Posperso Desperso Status W	then, ** if enabled**, ceases transmission and deactivates XAUI transmit signals to						
	conserve energy. When the receiver						
	sees the sleep symbols it transitions to a quiet state. The XGMII Extender periodically transmits during the						
C/ 74 SC 74.5.1.8 P233 L35 # 43	quiet period to allow the attached XGMII Extender to refresh its receiver state (e.g. timing recovery, adaptive						
	filter coefficients) and thereby track long term variation in the timing of the link or the						
incorrect reference to EEC. SIGNAL indication	underlying channel characteristics. If, during the quiet or refresh periods, normal inter-frame idle is asserted at						
also incorrect capitalization	the XGMII,						
SuggestedRemedy	the XGMII Extender re-activates transmit functions and initiates transmission. This transmission will be						
Change: "FEC_SIGNAL.indication(RX_LPI_ACTIVE)" to "FEC_LPI_ACTIVE.request(rx_lpi_active)"	detected by the attached XGMII Extender, causing it to also exit the low power state.						
Proposed Response Response Status W							
PROPOSED ACCEPT IN PRINCIPLE.							
This is a duplicate comment. This issue is already covered through comment #43, filed by the same commenter.							

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 U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

Comment ID # 44

C/ 49 SC 49.2.4.7 Brown, Matt	P 160 Applied Micro	L 8 (AMCC)	# 45	<i>Cl</i> 49 Brown, M	SC 49.2.4.4	P 159 Applied Mic	L 40 ro (AMCC)	# 48	
<i>Comment Type</i> E For consistency, char	Comment Status D age /LI/ name to match name in	n Clause 55 (pa	ge 188, line 18).	Comment Note	<i>Type</i> T clear what "this o	Comment Status D			
SuggestedRemedy Change "LPI" to "Ip_ic Alternately, change C Proposed Response PROPOSED REJEC There is no requirement	dle". lause 55 "lp_idle" to "LPI". <i>Response Status</i> W r. ent for naming consistency bet	ween separate I	PCS clauses.	Suggeste Chan Proposea PROI "This	dRemedy ge "this option" to Response POSED REJECT. option" clearly rel	"EEE capability". <i>Response Status</i> W fers to the option described	in the previous se	entence.	
C/ 49 SC 49.1.5	P159	L 33	# 46	<i>Cl</i> 49 Brown, M	SC 49.2.4.4 att	P 159 Applied Mic	L 40 ro (AMCC)	# 49	
Comment Type TR SuggestedRemedy	Comment Status D	(AWCC)		Comment It say suppo as a r and e	<i>Type</i> TR s that if EEE is su orted then LPI cha esult of AN, how nabled?	Comment Status D apported LPI characters may aracters are treated as error shall LPI characters be treated	y be transmitted a rs. If EEE is suppor ated. Does suppor	nd if EEE is not orted, but not enabled ted mean implemented	
Provide specification ENERGY_DETECT.ir TX_MODE.request(tx RX_MODE.request(r) RX_LPLACTIVE.req	for EEE service primitives: ndication(energy_detect) equ _mode) equate to tx_mode v c_mode) equate to rx_mode vest(ry_loi_active) equate to	ate to energy_c /ariable variable rx_lpi_active va	letect variable	SuggestedRemedy Clarify what is meant by supported and/or clarify what to do if EEE is implemented, but not enabled.					
Proposed Response PROPOSED REJEC	Response Status W			Proposed PROI	Response POSED REJECT.	Response Status W			
The primitive definitio (such as tx_data).	ns are in Clause 51. As they a	re for all of the i	nter-sublayer interfaces	AN is used to exchage capabilities. If a device indicates that it is "not capable" then it does not support the function. There is no need to clarify the case where a device does support the function but pretends not to.					
C/ 49 SC 49.2.4.4 Brown, Matt	P 159 Applied Micro	L 40 (AMCC)	# 47						
Comment Type T Not clear what LPI is.	Comment Status D								
SuggestedRemedy Change "Low Power	dle(LPI) is an option" to "Low I	Power Idle (LPI)	control characters."						
Proposed Response PROPOSED REJEC	Response Status W								
The sentence is clear	The ability to transmit or rece	ive I ow Power	Idle (I PI) is an option						

The sentence is clear. The ability to transmit or receive Low Power Idle (LPI) is an option.

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 U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

1/22/2010 9:50:00 PM

Brown, Matt Applied Micro (AMCC)	Brown, Matt Applied Micro (AMCC)					
Comment Type T Comment Status D	Comment Type TR Comment Status D					
Scramble behavior here should align with than in scamble_bypass definition. SuggestedRemedy Change:	After signal changes from ALERT to DATA, the energy_detect may possibly indicate no energy. The purpose of using the ALERT signal was to provide a higher energy signal so that we may energy_detect threshold higher to prevent false energy detect from noise.					
use, the scrambler input shall bypass the scrambler while scrambler_bypass is TRUE."	As a result, when in RX_WAKE and RX_WTF states, it is very possible and expected that energy_detect will go FALSE before block lock is achieved.					
To: To aid block synchronization in the receiver for EEE capability when Clause 74 FEC is in	Since energy_detect is VERY reliable with the ALERT signal, a transition to RX_WAKE indicates either a REFRESH or WAKE signal not a false detection of noise or ringing.					
use, the PCS will pass the unscrambled data from the scrambler input rather than the scrambled data from the scrambler output. The scrambler will continue to operate normally	SuggestedRemedy					
shifting input data into the delay line.	Remove the following transitions:					
Proposed Response Response Status W	RX_WARE to RX_QUIET					
PROPOSED ACCEPT.	Proposed Response Response Status W					
C/ 49 SC 49.2.13.2.2 P164 L 22 # 51	PROPOSED ACCEPT.					
Brown, Matt Applied Micro (AMCC)	C/ 49 SC 00 P00 L0 # 53					
Comment Type T Comment Status D	Brown, Matt Applied Micro (AMCC)					
The energy_detect variable state is determined from energy_detect primitive from FEC and/or PMA. The primitive has the values OK and FAIL, whereas the energy detect variable is expected to have the values TRUE and FALSE. Redefine energy_detect variable and	Comment Type E Comment Status D Capitalization of constants TRUE and FALSE is inconsistent.					
update LPI Receive state diagram (Figure 49-17).	SuggestedRemedy					
SuggestedRemedy Change variable name from energy_detect to energy_detect_ok. Make changes throughout section to references to this variable (not the primitive) including Figure 49-17.	In all text and figures, where the word represents a value or state, replace: "true" with "TRUE" "false" with "FALSE"					
Change definition of one ray, detect, ok to	Proposed Response Response Status W					
A Boolean variable indicating when the PMD detects signal energy. The variable is set to	PROPOSED ACCEPT.					
energy_detect primitive indicates FAIL.	C/ 49 SC 49.2.13.2.2 P164 L43 # 54					
Proposed Response Response Status W	Brown, Matt Applied Micro (AMCC)					
PROPOSED ACCEPT IN PRINCIPLE.	Comment Type T Comment Status D					
See also comments #4 & #5 (Clause 51)	All variables here are specific to EEE based on sentence on line 20.					
	SuggestedRemedy					
Te energy_detect variable that is defined and used in this clause is boolean, therefore no change is needed to Clause 49. However, the commenter correctly identified the error in	Replace "For EEE capability, this" with "This".					
Clause 51 that is remedied by comment #4 & #5.	Proposed Response Response Status W PROPOSED ACCEPT.					
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W SORT OR DEF: Commont ID	G/general //written C/closed U/unsatisfied Z/withdrawn Comment ID # 54 1/22/2010 9:50:0					

IEEE P802.3az D2.2 Energy Efficient Ethernet comments

C/ 49 SC 49.2.13.2.2 P165 L19 # 55	C/ 45 SC 45.2.7.14a P130 L 24 # 58
Brown, Matt Applied Micro (AMCC)	Grimwood, Michael Broadcom
Comment Type E Comment Status D	Comment Type TR Comment Status D
It is common to refer to PCS receiver not PCS's receiver.	register bit numbering as was specified in the resolution to Comment #193 against Draft
Suggested Remedy	2.1 at the November Plenary.
Change "PCS's receiver" to "PCS receiver". 7 instances on page 165	Also, since this refers to register 7.61 the hit designations need to be changed from 7.60 x
Pronosed Response Response Status W	to 7.61.x.
PROPOSED ACCEPT	SuggestedRemedy
	In table 45-157b,
C/ 49 SC 49.2.13.3 P170 L11 # 56 Brown, Matt Applied Micro (AMCC) Applied Micro (AMCC) <td< td=""><td>Change all eight occurrences of "7.60." to "7.61."</td></td<>	Change all eight occurrences of "7.60." to "7.61."
Comment Type T Comment Status D Figure 49-17.	For 7.60.3 (7.61.3) change next page bit number from "U2" to "U3" For 7.60.2 (7.61.2) change next page bit number from "U1" to "U2" For 7.60.1 (7.61.1) change next page bit number from "U0" to "U1"
	Proposed Response Response Status W
Suggesteakemedy	PROPOSED ACCEPT.
rx_block_lock*(block_lock=rx_block_lock)*R_TYPE(rx_coded)=LI	
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.	
Change condition to:	
rx_block_lock*block_lock* R_TYPE(rx_coded)=Ll	
Cl 45 SC 45.2.7.13a P128 L 24 # 57	
Grimwood, Michael Broadcom	
Comment Type TR Comment Status D The next page bit number references don't match up with the EEE advertisement register bit numbering as was specified in the resolution to Comment #193 against Draft 2.1 at the November Plenary.	
SuggestedRemedy	
III table 40-1078	
For 7.60.3 change next page bit number from "U2" to "U3" For 7.60.2 change next page bit number from "U1" to "U2" For 7.60.1 change next page bit number from "U0" to "U1"	
Proposed Response Response Status W	
PROPOSED ACCEPT.	
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/	/general Page 14 of 29

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

Comment ID # 58

Review detailed changes in the task force.

C/ 55 SC 55.3.5.4 Grimwood, Michael	P 199 Broadcom	L18	# 59	C/ 78 Grimwood	SC 78.1.1.2. Michael	1 E	P 237 Broadcom	L 8	# 60		
Comment Type TR [Tag: 10GBASE-T lpi_	Comment Status D req during training]	IASE	-T lpi_req during training	Comment Indica Fault.	<i>Type</i> TR te that LPI reque	Comment Sta sts are undefined	atus D d when the Pl	HY is indicating	Local Fault or Remote		
If LPI is signaled while	the PHY is training, during the	e PCS_Test stat	te, the local PHY may	SuggestedRemedy							
The PHY Control and the local PHY is trainin	Transmit PCS state diagrams ig and, if it is, ignore the LPI re	The effect of receipt of this primitive is undefined if link_status is not OK (see 28.2.6.1.1) or if LPI_REQUEST=ASSERT within 1 second of the change of link_status to OK.									
SuggestedRemedy				10.							
At the end of section 55.4.5.1, introduce a new variable, loc_lpi_en.				The effect of receipt of this primitive is undefined if link_status is not OK (see 28.2.6.1.1), or if LPI_REQUEST=ASSERT within 1 second of the change of link_status to OK, the PHY is indicating Local Fault, or the PHY is indicating Remote Fault.							
state PCS_Test and is	set to TRUE upon entry into I	PCS_Data.		Proposed	Response	Response Status W					
In the Transmit PCS st FALSE.	smit PCS state diagram, inhibit transitions to LPI (TX_L) when loc_lpi_en is				OSED ACCEPT						
Document the communiblock by updating the formation primitive associated with the second seco	nications between the PHY Co functional and reference diagr ith the variable, loc_lpi_en.	ontrol block and ams and definin	the Transmit PCS g the PMA service								
A presentation will be a Orleans detailing the s	submitted for review at the Jai pecific changes required.	nuary 2010 inter	im meeting in New								
Proposed Response	Response Status W										
PROPOSED ACCEPT	IN PRINCIPLE.										

CI 78	SC 78.5	P 251	L 26	# 61		C/ 40	SC 40.3.4	P 99	L11	# 62
Grimwood, I	Michael	Broadcom			-	Grimwood, I	Michael	Broadcom		

Comment Type TR Comment Status D [Tag: 10GBASE-T lpi reg during training]

If the 10GBASE-T PHY receives an LPI request while it is in PCS_TEST, it should defer acting upon this request until PCS_TEST is complete (A separate comment with the above tag proposes the mechanism by which the PHY ignores LPI requests while in the PCS_TEST state). With this mechanism, the LPI requestor may not know precisely when the PHY acted upon the LPI request and therefore there may be ambiguity with respect to whether or not the CASE-1 wake time may be used.

To avoid this ambiguity, state that the CASE-1 wake time only applies if the PHY has not indicated Local Fault for at least 10 msec. This time period allows enough time for PCS_TEST to complete.

SuggestedRemedy

Change:

Case-1 of the 10GBASE-T PHY applies when the PHY is requested to transmit the Wake signal before transmission of the Sleep signal to the Link Partner is complete.

To:

Case-1 of the 10GBASE-T PHY applies when the PHY is requested to transmit the Wake signal before transmission of the Sleep signal to the Link Partner is complete and if the PHY has not indicated Local Fault at any time during the previous 10 ms.

Proposed Response Response Status W

PROPOSED ACCEPT.

Comment Type **TR** Comment Status **D**

For 1000BASE-T EEE, the PHY can use 3 of the 4 pairs to provide a reliable indication of scrambler lock. If the PHY needs to encode LPI during training, then one of the pairs is needed to convey this information so that only 2 of the 4 pairs can effectively be used. This constraint results in a small but non-zero degradation in the robustness of the link-up process. Additionally, even if a PHY is allowed to encode LPI during training, the link cannot actually enter a low power state during this time. Thus, permitting an LPI command during training offers no real benefit yet results in a slight degradation in robustness.

This small degradation in robustness can be eliminated by having the PHY ignore LPI requests during training.

SuggestedRemedy

Explicitly prevent encoding loc_lpi_req during training. The changes required to accomplish this follow:

Introduce a new variable, loc_lpi_en, which in the PHY Control state diagram (Figure 40-15a) is set TRUE in the state "SEND IDLE or DATA" and is set FALSE in the states "SLAVE SILENT" and "SEND IDLE".

In the Local LPI Request state diagram (Figure 40-9), modify the transition condition into the state "LOC LPI REQ OFF" to be:

pcs_reset = ON + link_status != OK + loc_lpi_en = FALSE.

Document the communication between the PHY Control and the Local LPI Request blocks by updating the functional and reference diagrams and defining the PMA service primitive associated with the variable, loc_lpi_en.

A presentation will be submitted for review at the January 2010 interim meeting in New Orleans detailing the specific changes required.

Proposed Response Response Status W PROPOSED REJECT.

Pending review of grimwood_02_0110.pdf and Task Force discussion.

Cl 40 SC 40.3 . Healey, Adam	1.3.4 P97 LSI Corporatio	L 11	# 63	Cl 28C SC 28C.12 Kasturia, Saniav	P 258 Teranetics	L 33	# 66
Comment Type T It has been pointer replaced rather tha SuggestedRemedy Remove change h subclause and add Proposed Response PROPOSED ACC	Comment Status D lout by IEEE staff editors that, pe n highlighting changes using strik ghlighting (strikethrough and under replacement instructions before e Response Status W EPT.	r IEEE style, equa ethroughs and und erscore) from the e ach equation.	tions should be derscores. equations in this	Comment Type TR This is a "pile on" to o 45.2.7.14a require ne during autonegotiatio SuggestedRemedy Use the existing NP a Proposed Response PROPOSED REJEC	Comment Status D comment #20192. Annex 28C ew EEE next pages and new m n. This is unnecessary time. and XNP to control advertising <i>Response Status</i> W T.	and Clause 45.2 essage codes th of BASE-T EEE	.7.13a and clause at add 1/2 second
C/ 49 SC Figu Horner, Rita	e 49-17 P 170 Avago Techno	L 9 logies	# 64	The BRC will discuss previous drafts.	whether there is sufficient sup	port to overturn	the resolution in
Comment Type ER RX_ACTIVE, the t There is a missing SuggestedRemedy Draw in a feedbac the diagram. Proposed Response PROPOSED ACC C/ 49 SC Figu Horner, Rita	Comment Status D ansition with the condition "block_connectin to the right of the Figure connectin to the RX_ACTIVE state, where the RX_ACTIVE state, where the RSPONSE Status Response Status WEPT. e 49-17 P170 Avago Technologic	lock != rx_block_le e 49-17. ich matches the e <i>L</i> 18 logies	ock" goes nowhere. arlier D2.2 version of # 65	Cl 24 SC 24.2.3.4 Law, David Comment Type E A reference to subcla register list and does SuggestedRemedy Change the text ' re 45.2.3.9b) shall', Proposed Response PROPOSED ACCEP	P 37 3Com <i>Comment Status</i> D use 45.2.3.9b would be better not list individual bits. gister 3.22 (refer to Table 45-1) <i>Response Status</i> W T.	L 13 than to Table 45) shall' to read	# 67
Comment Type ER In RX_SLEEP, the R_TYPE(rx_codec of the Figure 49-17 SuggestedRemedy Draw in a feedbac the diagram. Proposed Response PROPOSED ACC	Comment Status D transition with the condition "rx_b) = IDLE" goes nowhere. There is t line to the RX_ACTIVE state, wh Response Status W EPT.	lock_lock *~rx_tq_ a missing line cor ich matches the e	timer_done * nection, to the right arlier D2.2 version of	Cl 24 SC 24.1.1 Law, David Comment Type ER Footnote 5 seems to 5 - and it should be a SuggestedRemedy Provide footnote 5 at Proposed Response PROPOSED ACCEP	P 31 3Com Comment Status D be marked as inserted text yet t the bottom of this page. the bottom of this page. Response Status W T.	L 26	# 68

C/ 14	SC 14.1.1.1	P15	L 49	# 69	CI 22	SC 22.2.1
Law, David		3Com			Law, David	1

Comment Type T Comment Status D

I believe that 10BASE-Te is a MAU and not a PHY. See subclause 14.1.1'Overview' which states that 'This clause also specifies the functional, electrical, and mechanical characteristics of the Energy Efficient version of 10BASE-T, the type 10BASE-Te MAU, and one specific medium for use with that MAU.'. 10BASE-T is also a MAU. A MAU is not the same as a PHY - see Figure 1-1 in IEEE Std 802.3-2008.

SuggestedRemedy

Change 'A 10BASE-TE PHY interoperates with a 10BASE-T PHY if the minimum cabling requirements of a 10BASE-TE PHY are met.' to read 'A 10BASE-Te MAU interoperates with a 10BASE-T MAU if the minimum cabling requirements of a 10BASE-Te MAU are met.

Also change subclause 78.1 (page 235, line 20) that reads 'In addition to the above, EEE defines a 10 Mb/s PHY (10BASE-Te) with reduced transmit amplitude requirements. The 10BASE-Te PHY is fully interoperable with 10BASE-T PHYs over 100 m of class D (Category 5) or better cabling as specified in ISO/IEC 11801:1995.' to read 'In addition to the above, EEE defines a 10 Mb/s MAU (10BASE-Te) with reduced transmit amplitude requirements. The 10BASE-Te MAU is fully interoperable with 10BASE-T MAUs over 100 m of class D (Category 5) or better cabling as specified in ISO/IEC 11801:1995.'.

Proposed Response	Response Status	w	
PROPOSED ACCEPT.			

CI 24	SC 24.2.3.1	P35	L 39	# 70	
Law. David		3Com			

Comment Type T Comment Status D

According to Table 22-2 a binary value 0001 of receive nibble-wide Data signals (RXD), together with the de-assertion of RX_DV and the assertion of RX_ER on the MII is used to indicate "Assert LPI" (see page 26, line 10).

SuggestedRemedy

Change '.. used to indicate "receive LPI", as ..' to read '.. used to indicate "Assert LPI", as ..'.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 22	SC 22.2.1	P 22	L 5	#	71
Law, David		3Com			

Comment Type TR Comment Status D

EEE requires the use of the MAC defined in Annex 4A.

SuggestedRemedy

Change the text 'The definition of LPI signaling assumes the use of the MAC defined in Annex 4A..' to read 'Support for EEE requires the use of the MAC defined in Annex 4A ..'.

Please make the same change in subclause 35.2.1, 46.1.7 and 78.1.1.

Proposed Response Response Status W

PROPOSED ACCEPT.

Editors to ensure that changes are made in clauses 22, 35, 46 and 78.

CI 00	SC 0	Ρ	L	# 72
Law, David		3Com		

Comment Type ER Comment Status D

It has been agreed with staff that where a subclause is inserted prior to the existing first subclause it is labelled [existing subclause - one level].[a through z]. Where a subclause is inserted after an existing subclause - assuming it is not the last - the new subclause it is labelled [subclause number][a through z].

For example to insert two subclauses before 43.2.1 the subclauses would be numbered 43.2.a and 43.2.b. Two subclauses between 43.2.1 and 43.2.2 would be numbered 43.2.1a and 43.2.1b. Two subclauses added after the last subclause 43.2.2 would be numbered 43.2.3 and 43.2.4.

At the moment we are not consistent in IEEE P802.3ba and IEEE P802.3az. In some cases the draft isn't consistent with itself.

SuggestedRemedy

Use consistent subclause insertion numbering including style guide and approach agreed with staff.

Proposed Response Response Status W

PROPOSED ACCEPT.

C/ 28C	SC 280	C.12	P 258	L 33	# 73	C/ 46	SC /	46.4a	P135	L 4 8	\$	# 74	
marris, An	nur		Cadence			Parnaby,	Javin		Solaman	e Communicat			
Comment	Type T	R	Comment Status D			Comment Type T Comment Status D							
This is	s a pile on t	o 20192 a	against draft 2.1			Do we	e need to	o add a c	lescription here of what h	happens if the l	PHY is in LPI c	on the transmit	
Surely config	the whole uration ope	point of a eration.	adding XNPs for 10GBASE	-T was to use t	hem for this sort of	side and in the normal operational mode on the receive side, and it receives LF from the link partner?							
SuggestedRemedy						It is n	ot clear f	from the	text whether LF or LP_ID	DLE takes prec	edence.		
Please	e reconside	er reponse	e to 20192			l belie	ve that	accordin	a to 46.3.4 the RS shou	ld respond to I	F by sending	RF on the	
Proposed	Resnonse		Response Status W			transmit path. This would wake the transmit side of the link if it were in LPI.							
PROP		IFCT '				Suaaeste	Remed	1v					
						Add to	ext statir	ο na that th	e fault signaling takes or	ecedence - tra	nsmitting the F	RF will wake up	
The B previo	The BRC will discuss whether there is sufficient support to overturn the resolution in previous drafts.			the resolution in	the Pl	HY.	ig alor a			lienning lie i			
•						Shoul	d this de	escription	be added to clause 78?				
						Proposed Response Response Status W							
						PROF	OSED	ACCEPT	IN PRINCIPLE.				
						Bring	46.3.4 ir	nto the d	raft. Modify the second p	aragraph:			
						Subla	yers with	hin the P	HY are capable of detect	ting faults that	render a link u	nreliable for	
						comm	unicatio	on. tion of a t	fault condition a DHV sub	lovor indicator	a Local Fault a	tatus on the	
						data r	ath. Wh	nen	ault contuition a FITT Sui	blayer indicates	, LUCAI FAUIL SI		
						this L	ocal Fau	ult status	reaches an RS, the RS s	stops sending I	MAC data ** or	r LPI **, and	
						contin	uously g	generate	s a Remote				
						Fault status on the transmit data path (possibly truncating a MAC frame being transmitted							
						Fault status is received by an RS, the RS stops sending MAC data, and continuousl						tinuously	
						gener	ates Idle	e control					
						chara	cters. W	hen the	RS no longer receives fa	ult status mess	sages, it return	is to normal	
						MAC	data ** c	or LPI **.					

C/ 46	SC 46.4a	P135	L 47	# 75	C/ 46	SC	46.4a	Р	L	# 77
Parnaby, (Gavin	Solarflare Co	ommunicat		Parnaby, 0	Gavin		Solarflare	Communicat	
Comment	Туре Т	Comment Status D			Comment	Туре	TR	Comment Status D		
The M or rec PHY i	IAC should be pre eiving fault signali s retraining. This v	vented from requesting a tr ng, to prevent LPI requests vould prevent any frames b	ansition into LPI w occuring during P eing lost during LF	vithin 1 ms of sending CS_Test while the PI transitions following	TX_EI RX_E	N, TX_E N, RX_	ER and TX ER and R	D<7:0> are not the corre	ct names for 10G. ect names for 10G	
PCS_	lest.				This s	eems to	o be a cop	y/paste error from the GN	/III clause.	
The c opera auton	urrent text states t tional for at least 1 ea	hat LPI requests should be second, but this only traps	prevented unless the case when th	the link has been e link retrains after	Suggested Updat	Remed the the na	<i>dy</i> ames and	description to use TXD/T	XC, RXD/RXC.	
Suggester	dRemedy				Proposed PROP	Respor	ACCEPT	Response Status W		
Add te receiv	ext stating that trar ring fault signaling.	nsitions to LPI should be pro	evented within 1 m	ns of sending or	Chang	ge the n	names. Als	o change the reference f	rom 35.2.1.1 to 46	.1.7.
Proposed	Response	Response Status W			C/ 55	SC	55.3.5.4	P 201	L 5	# 78
PROF	POSED REJECT.				Parnaby, C	Gavin		Solarflare	Communicat	
There are no	is already a restri ot necessary and h	ction on LPI dependent on have no effect on frame loss	ink state (46.1.7).	Additional restrictions	Comment rx_lpi_	<i>Type</i> _active	TR is not set i	Comment Status D n the 64B/65B state diag	ram until RX_L. It	<i>rx_lpi_active init</i> should be reset in
C/ 55	SC	Р	L	# 76	RX_IN	NT.				
Parnaby, (Gavin	Solarflare Co	ommunicat		tx_lpi_	_req is r	not set in t	he 64B/65B state diagran	n until TX_L. It sho	uld be reset in TX_INIT.
Comment	Type TR	Comment Status D			Suggested	dRemed	dy			
Add th	ne 10GBASE-T ad	hoc output (link monitor ar	d fast retrain capa	abilities) to the draft.	Add rx	<_lpi_ac	ctive <= fa	se to the RX_INIT state.		
Suggestee	dRemedy				Add tx	_lpi_re	q <= false	to the TX_INIT state.		
As co	mment.				Proposed	Respor	nse	Response Status W		
Proposed	Response	Response Status W			PROP	OSED	ACCEPT.			
PROF	OSED ACCEPT.				<i>Cl</i> 36 Pillai, Velu	SC	36.2.5.1.3	P 75 Broadcom	L 30	# 79
					Comment	Туре	TR	Comment Status D		
					Definit sync_:	tion of c stauts.	code_sync	_status should be same a	as what is there in	802.3-2008 for
					Suggested	dRemed	dy			
					A para viewee	ameter : d by the	set by the receiver.	PCS Synchronization pro	ocess to reflect the	status of the link as
					Proposed	Respor	nse	Response Status W		
					PROP	POSED	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 U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

Proposed responses		IEEE F	802.3az D2.2 En	ergy Efficient Ethernet comme	ents
C/ 36 SC Fig 36-7a Pillai, Velu <	P 81 Broadcom	L 24	# 80	Cl 36 SC Fig 36-7c Pillai, Velu	Bre
Comment Type ER Missing closing paranthe	Comment Status D sis after idle_d			Comment Type TR Exit out of RX_WAKE_I	Comment Stat
SuggestedRemedy				SuggestedRemedy	
Proposed Response PROPOSED ACCEPT.	Response Status W			Proposed Response PROPOSED ACCEPT.	Response State
Cl 36 SC 36.2.5.1.7 Pillai, Velu	P 76 Broadcom	L 48	# 81	C/ 36 SC Fig36-7a Pillai, Velu	Br
Comment Type TR Description for tx_ts_time This timer is started when It should be	Comment Status D er, tx_tq_timer and tx_tr_timer h the PCS receiver enters	starts as :		Comment Type TR Missing rx_lpi_active <= SuggestedRemedy	Comment Stat = FALSE inside Ll
This timer is started wher	n the PCS transmitter enters			Add the above.	
SuggestedRemedy				Proposed Response PROPOSED ACCEPT.	Response State
Proposed Response PROPOSED ACCEPT.	Response Status W			<i>Cl</i> 74 <i>SC</i> 74 Pillai, Velu	Bre
C/ 36 SC Fig 36-7c Pillai, Velu	P 83 Broadcom	L 5	# 82	Comment Type TR Editor forgot to change	Comment Stat the tx_quiet and r
Comment Type TR To be consistent across a	Comment Status D all the EEE PHYs, change the	state name fro	om	SuggestedRemedy Refer to Pillai_1109_01	.pdf and modify a

START_RX_SLEEP to RX_SLEEP. Also on page 76, line 31.

If the editor decides to keep the name, then on page 76, line 28 change the name RX_SLEEP to START_RX_SLEEP.

SuggestedRemedy

Proposed Response Response Status W PROPOSED ACCEPT.

<i>Cl</i> 36 Pillai, Velu	SC Fig 36-7c	P 83 Broadcom	L 40	# 83	
Comment Ty Exit out	ype TR of RX_WAKE_D	Comment Status D ONE should be to H and not	to G		
SuggestedR	Remedy				
Proposed R PROPO	esponse SED ACCEPT.	Response Status W			
<i>Cl</i> 36 Pillai, Velu	SC Fig36-7a	P 81 Broadcom	L 4	# 84	
Comment Ty Missing	<i>ype</i> TR rx_lpi_active <=	Comment Status D FALSE inside LINK_FAILED) state		
SuggestedR Add the	<i>Remedy</i> above.				
Proposed R PROPO	esponse ISED ACCEPT.	Response Status W			
<i>Cl 74</i> Pillai, Velu	SC 74	P 230 Broadcom	L	# 85	
Comment Ty Editor fo	ype TR prgot to change th	Comment Status D he tx_quiet and rx_quiet to tx	_mode and rx_	mode.	
SuggestedR Refer to	Remedy Pillai_1109_01.	pdf and modify appropriately			
Proposed R PROPO	esponse ISED ACCEPT.	Response Status W			
<i>Cl</i> 49 Pillai, Velu	SC Fig 49-16	P 169 Broadcom	L12	# 86	
Comment Ty Arrow h	ype TR ead for TX_ACT	Comment Status D	eds to touch the	vertical line.	
SuggestedR	Remedy				
Proposed R PROPO	esponse SED ACCEPT.	Response Status W			

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 U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

Comment ID # 86

Page 21 of 29 1/22/2010 9:50:00 PM

Comment Type TR Comment Status D Arrow heads for RX_ACTIVE to RX_ACTIVE and RX_SLEEP to RX_ACTIVE are floating. Suggested/Renedy Fix the diagram Proposed Response Response Status W PROPOSED ACCEPT. Cl 49 SC 492.132.5 Pitel, Velu Broadcom Comment Type TR Comment Status D There description for tx, is, timer, tx, timer and tx, tw_timer states This time is started when the PCS's transmitter. Suggested/Remedy Proposed Response Proposed Response Status W PROPOSED ACCEPT. Cl 49 SC 492.133.1 P108. Velu Broadcom Comment Type TR Comment Status D Proposed Response Status W PROPOSED ACCEPT. Cl 49 SC 492.133.1 P108. Velu Broadcom Comment Type TR Comment Status D The transmit LPI state diagram controls tx, mode which disables the transmitter when it is state diagram controls tx, mode which disables the transmitter when it is sto quiet. This through the quict status diagram controls tx, mode which disables the transmitter when it is sto quiet. Suggested/Remedy <t< th=""><th>Cl 49 SC Pillai, Velu</th><th>C Fig 49-17</th><th>P170 Broadcom</th><th>L 9</th><th># 87</th><th><i>Cl</i> 49 Pillai, Velu</th><th>SC Fig 49-16</th><th>B P169 Broadcom</th><th>L 41</th><th># 90</th></t<>	Cl 49 SC Pillai, Velu	C Fig 49-17	P 170 Broadcom	L 9	# 87	<i>Cl</i> 49 Pillai, Velu	SC Fig 49-16	B P 169 Broadcom	L 41	# 90
Proposed Response Response Status W PROPOSED ACCEPT. Of 49 SC 49.2.13.2.5 P165 L34 # 85 Proposed Response Response Status W PROPOSED ACCEPT. Of mining it to Broadcom Comment Status D Comment Status D This time it is stande when the PCS's transmitter. SuggestedRemedy Comment Status D Comment Status D Proposed Response Response Status W Proposed Response Status W Proposed Response Status W PROPOSED ACCEPT. C1 49 SC 49.213.3.1 P168 L5 # 99 Pilial, Velu Broadcom SuggestedRemedy SuggestedRemedy SuggestedRemedy Proposed Response Response Status W PROPOSED ACCEPT. C1 49 SC 49.213.3.1 P168 L5 # 99 Pilial, Velu Broadcom SuggestedRemedy SuggestedRemedy SuggestedRemedy SuggestedRemedy The transmit LP1 state diagram controls tx_mode which disables the transmitter when it is set to quiet. SuggestedRemedy SuggestedRemedy SuggestedRemedy SuggestedRemedy Proposed Response Response Status W PropOSED ACCEPT IN PRINCIPLE. C149 SC Fig 49-17 <	Comment Type Arrow head SuggestedReme Fix the diag	TR Co s for RX_ACTIVE edy jram	omment Status D to RX_ACTIVE and RX	_SLEEP to RX	ACTIVE are floating.	Comment Inside tx_mo to tx_mo	<i>Type</i> TR TX_REFRESH s de <= data de <= DATA	Comment Status D tate change		
Cl 49 SC 49.2.13.2.5 P165 L 34 # 88 Pillal, Velu Broadcom Broadcom PROPOSED ACCEPT. Comment Type TR Comment Status D Timer description for tx, ts_limer kt_r_timer and tx_tw_timer states This timer is stated when the PCS's receiver. P108.1 Velu Broadcom Cl 49 SC Fig 49-16 P169 L 24 # [91 Proposed Response Response Status W D Proposed Response Response Status W PROPOSED ACCEPT. Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status W Proposed Response Response Status	Proposed Responses	onse Res D ACCEPT.	sponse Status W			Suggested	lRemedy			
Comment Type TR Comment Status D Timer description for tx_ts_timer, tx_tg_timer tx_tr_timer and tx_tw_timer states This timer is started when the PCS's transmitter. Change it to This timer is started when the PCS's transmitter. SuggestedRemedy Response Response Status W Proposed Response Response Status W Proposed Response Status D Fillai, Velu Broadcom Comment Type TR This standidgram controls tx_mode which disables the transmitter when it is set to quiet. SuggestedRemedy Proposed Response Response Status W PROPOSED ACCEPT. P110 L47 Vial Broadcom Comment Type TR Comment Status D SuggestedRemedy Comment Type TR	<i>Cl</i> 49 <i>SC</i> Pillai, Velu	C 49.2.13.2.5	P 165 Broadcom	L 34	# 88	Proposed PROP	Response OSED ACCEPT.	Response Status W		
Proposed Response Response Status W PROPOSED ACCEPT. Cl 49 SC 49.2.13.3.1 P168 L5 # 89 Pillai, Velu Broadcom Comment Type TR Comment Status D The transmit LP1 state diagram controls tx_mode which disables the transmitter when true. This should say The transmit LP1 state diagram controls tx_mode which disables the transmitter when it is set to quiet. Broadcom SuggestedRemedy Broadcom Proposed Response Response Status W PROPOSED ACCEPT. Proposed Response Status W PROPOSED ACCEPT. Response Status W PROPOSED ACCEPT. Response Status W PROPOSED ACCEPT. Proposed Response Status W PROPOSED ACCEPT. Response Status W PROPOSED ACCEPT. Response Status W PROPOSED ACCEPT. Response Status W	Comment Type Timer descr This timer is change it to This timer is SuggestedReme	TR Co ription for tx_ts_tir s started when the s started when the edy	omment Status D ner, tx_tq_timer tx_tr_tin e PCS's receiver e PCS's transmitter.	ner and tx_tw_t	imer states	Cl 49 Pillai, Velu Comment Either one_u or one_u	SC Fig 49-16 Type TR change all the 10 S_timer s_timer	P169 Broadcom <i>Comment Status</i> D usec timer name to	L 24	# 91
Comment Type TR Comment Status D The transmit LPI state diagram controls tx_mode which disables the transmitter when true. This should say C/ 49 SC Fig 49-17 P 170 L 47 # 92 The transmit LPI state diagram controls tx_mode which disables the transmitter when it is set to quiet. Broadcom Comment Type TR Comment Status D SuggestedRemedy Proposed Response Response Status W Broadcom SuggestedRemedy PROPOSED ACCEPT. Proposed Response Response Status W SuggestedRemedy Proposed Response Response Status W PROPOSED ACCEPT. Proposed Response Response Status W PROPOSED ACCEPT. Use tx_one_us_timer, rx_one_us_timer Use tx_one_us_timer, rx_one_us_timer	Proposed Responsed PROPOSEI	onse Res D ACCEPT. C 49.2.13.3.1	P168	L 5	# 89	Suggested Proposed PROP	IRemedy Response 'OSED ACCEPT	Response Status WIN PRINCIPLE.		
This should say The transmit LPI state diagram controls tx_mode which disables the transmitter when it is set to quiet. SuggestedRemedy Proposed Response Response Status W PROPOSED ACCEPT. Comment Type TR Comment Status D one_uS_timer is used in TX LPI and RX LPI state diagrams. It is better to use different names for these timers to avoid confusion and to follow the usual practice in IEEE standards. SuggestedRemedy Suggestion is to change the one on Fig 49-16 to be tx_one_uS_timer and the one on fig 49-17 to be tx_one_uS_timer. And add appropriate descriptions under 49.2.13.2.5 Proposed Response Response Status W PROPOSED ACCEPT. Use tx_one_us_timer, rx_one_us_timer	Comment Type The transmi when true.	TR Co it LPI state diagra	mment Status D m controls tx_mode whi	ch disables the	transmitter	Chang <i>Cl</i> 49 Pillai, Velu	ge all occurrences SC Fig 49-17	s to one_us_timer P 170 Broadcom	L 47	# 92
Proposed Response Response Status W PROPOSED ACCEPT. Suggestion is to change the one on Fig 49-16 to be tx_one_uS_timer And the one on fig 49-17 to be rx_one_uS_timer. And add appropriate descriptions under 49.2.13.2.5 Proposed Response Response Status W PROPOSED ACCEPT. V Use tx_one_us_timer, rx_one_us_timer	This should The transmi when it is se SuggestedReme	say it LPI state diagra et to quiet. edy	m controls tx_mode whi	ch disables the	transmitter	Comment one_u diagra confus	Type TR S_timer is used i ms. It is better to sion and to follow <i>IRemedy</i>	Comment Status D n TX LPI and RX LPI sta use different names for t the usual practice in IEE	te hese timers to avoid E standards.	
Use tx_one_us_timer, rx_one_us_timer	Proposed Resp PROPOSEI	onse Res D ACCEPT.	sponse Status W			Sugge and th descri <i>Proposed</i> PROP	estion is to chang e one on fig 49-1 ptions under 49.2 <i>Response</i> OSED ACCEPT	e the one on Fig 49-16 to 7 to be rx_one_uS_timer 2.13.2.5 <i>Response Status</i> W IN PRINCIPLE.	be tx_one_uS_timer And add appropriate	
						Use tx	_one_us_timer,	rx_one_us_timer		

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

Comment ID # 92

<i>Cl</i> 72 SC 72 Pillai, Velu	P 224 Broadcom	L	# 93	<i>Cl</i> 49 Pillai, Velu	SC 49	P 158 Broadcom	L1	# 95
Comment Type TR	Comment Status D			Comment 7	Type TR	Comment Status D		
None of the changes list	ed in Pillai_1109_01.pdf got a	added/modified i	nto CL72.	The dra reques	aft is not addre t if the link par	essing the situation in which how tner is transmitting Local fault.	w a transmitter v	will handle an LPI
Suggesteakemeay				Suggested	Remedy			
Proposed Response PROPOSED ACCEPT II	Response Status W N PRINCIPLE.			Michae presen need fo	I Grimwood is tation. Either t	expected to address this proble ne 10GBASE-R PHY should ad nis issue separately.	em for 10GBAS lopted a similar	E-T PHYs through a solution or there is a
Put changes from Pillai_	1109_01.pdf into the next dra	ıft		Proposed F PROPO	<i>≀esponse</i> DSED ACCEF	Response Status W T IN PRINCIPLE.		
Cl 49 SC Fig 49-17 Pillai, Velu	P 170 Broadcom	L 46	# 94	This is	handled in the	RS. See response to commen	t #74.	
Comment Type TR	Comment Status D			C/ 40	SC 40.1.3	P 89	L 9	# 96
In draft 2.2 a new state g	ot added to Fig 49-17. In cer	tain cases this tr	ansition from	Thaler, Pat		Broadcom		
RX_WAKE to RX_SCR_	BYPASS can cause issues.			Comment 7	Гуре Е	Comment Status D		
For example: during refree the transmitter asserts s [,]	esh, what if the FEC gained th cr_bypass. This will lead the r	ne block lock by receive PCS to و	chance much before get an rx_block_lock,	The res remove	sponse to com more comm	ment 427 on the initial WG ball only known as"	ot was suppose	to be applied here to
at which case this transit scr_bypass, the receive	ion will take place. But then v PCS might see != LI, which w	vhen the transm vill wake the rece	itter asserts viver up.	Suggested Apply t	R <i>emedy</i> he response.			
SuggestedRemedy				Proposed F	Response	Response Status W		
Don't have a suggestion	at this point. But certainly this	s needs more di	scussions.	, PROPO	, DSED ACCEF	Т.		
Proposed Response	Response Status W							
PROPOSED ACCEPT IN	N PRINCIPLE.			C/ 14	SC 14.10.3	P 21	L12	# 97
This scenario must be pr	revented by modifying the rec	uirements in Cla	ause 74. The FEC	Thaler, Pat		Broadcom		
must be precluded from a (even if it luckily attains b deassertion of rx_quiet, v	asserting SIGNAL_OK until it plock lock without it). The rest with rx_lpi_active asserted.	detectes the de riction applies for	terministic block blowing the	Comment T Since t of a 10	<i>ype</i> ER he decision wa BASE-Te MAI	Comment Status D as that 10BASE-T includes 10B J also checks the 10BASE-T bo	ASE-Te, it is ur	clear whether a maker
Note that this requires a	change to Clause 74, no cha	nge to Clause 4	9.	Suggested Add tex	Remedy kt to the 10BA	SE-T entry that excludes 10BA	SE-TE.	
				Proposed F	Response	Response Status W		

Cl 28C	SC 28C.12	P2	58 L 38	# 98	C/ 45	SC 45.2.7.13	Ba P128	L 25	# 99
maier, Pat		Бгоас	_		maier, Pat		Broadcom		
Comment T	уре Т	Comment Status	D		Comment T	/pe TR	Comment Status D		
This sa field bit	ys that 45.2.7 s (which is th	7.13a defines what is se e only field in the unform	nt in bits U10:U0 so natted page).	there are no remaining	U The bit through the U fie	assignments st U1 of the U fie Id. This was ag	ill aren't right. Bits 3 through Id. I.e. each bit in the registe greed in the resolution of my	1 of the register r should map to comment 416 o	should map to U3 the corresponding bit of on the first ballot and in
The bits	s should all b	e defined in one place (45.2.7.13a) so that th	is doesn't need to be	the resp	onse to 193 in	the first recirculation.		
updateo update	d two places it to cover all	f another bit is used sor the bits.	metime. My commen	t on 15.2.7.13a would	This co	nment also ap	plies to 45.2.7.14a which sho	ould use the sam	ie mapping.
					SuggestedF	emedy			
I NIS CO	mment also a	ipplies to 73A.4			Change	the mapping of	of bits 3 through 1 to U3 throu	uah U1 respectiv	velv in both tables.
Suggested	Remedy				g-			.9	
Delete	", the remaini	ng field bitson receipt	t".		I would	also prefer that	t the resolution in response to	o 416 be fully im	plemented - the register
Proposed F	Response	Response Status	w		bits 0 th	rough 15 shou	Id map to U0 through U15 (a	Il bits apply to C	lause 73 and only bits 0
PROPO	, DSED ACCEI	РТ.			for the r	egister to U bit	s to be established now for w	vhen additional t	bits are added latter.
Change	e for 28C 12 ;	and 73A 4			Proposed R	esponse	Response Status W		
Change					PROPC	SED ACCEPT	IN PRINCIPLE.		
See als	o comment #	99			Change Make th	3:1 to U3 thro e change in bo	ugh U1 to rectify editorial mis oth tables: 45-157a and 45-15	stake implementi 57b	ing comment #193.
					Add a n	ew paragraph a	after the current one in 45.2.7	7.13a:	
					Bits 10: page fo 7.60 ma technolo may ign autonec	0 of register 7.6 lowing a EEE t p to bits U15 tl ogy message c ore bits defined otiation may ig	50 map to bits U10 through L technology message code as hrough U0 respectively of the ode as defined in 73A.4. Dev d for Clause 73 autonegotiati nore bits defined for Clause	I0 respectively o defined in 28C. unformatted ne vices using Clau on and devices 28 autonegotiati	If the unformatted next .12. Bits 15:0 of register ext page following a EEE se 28 autonegotiation using Clause 73 ion.

IEEE P802.3az D2.2 Energy Efficient Ethernet comments

C/ 55	SC 55.3.2.2.9a	P189	L13	# 100	C/ 14	SC 14	P 15	L 5	# 101
Thaler, Pa	at	Broadcom			Thaler, Pat	I	Broadcor	n	
Comment	Type TR Com	ment Status D			Comment	Type TR	Comment Status D		
Most few ca	of the clean-up of termino ases where the EEE capa	logy for LPI and EEE bility is referred to as	has been done low power idle.	, but there are still a	Some needs be trea	text still implies to be for backw ated as a subtyp	that a type 10BASE-Te N ards compatibility in place e of 10BASE-T.	IAU is not a type 10 es like autonegotiati	BASE-T one, but it on. 10BASE-Te should
in the	state machine definitions	of clause 55, "When	the low power in	dle function is <not></not>	Suggestea	Remedy			
low po capat	ower idle function. These solitity.	should all refer to EE	E which is the n	ame of the optional	In the	title of Clause 14	4, change "and type 10BA	ASE-Te" to "includin	g type 10BASE-Te".
Suggeste	dRemedy				14.1.1 single	in the note say:	"Support for both 10BAS	E-Te and non-10BA	SE-Te signal levels in a
If low "the lo	power idle is not supporte	ed should be "If EEE i oudl be "EEE"	is not supported	n .	differe	ntiate from 10B/	ASE-Te.	logacy tobroe t	where you need to
Check correct optior	, k for any other instances o ct. LPI is the signal and LF nal capability.	of supported being ap PI mode is the state v	plied to low pow where that signa	ver idle or LPI and is used. EEE is the	14.1.1 langua 10BAS	.3 - the first para ge to exclude 1 SE-Te" or "legac	agraph doesn't explicitly e 0BASE-Te; either replace y 10BASE-Te"	xclude 10BASE-Te 10BASE-T with "10	The paragraph needs DBASE-T except
Proposed	Response Respo	onse Status W			14.3, T include	he additional se	entence "This subclause a	also" is not neede	d since 10BASE-T
PROF	POSED ACCEPT IN PRIN	ICIPLE.			Include			ileu.	
Also r	make changes on page 17	79, 195, 196, 206.			14.3.1 exclud	2 the paragaph e 10BASE-Te.	about insertion loss for a	legacy 10BASE-T	MAU needs to explicitly
					This no 10BAS Figure	eeds to be done E-Te. The para 14-7 is an exan	for every time that there graph near the beginning nple where it was done rig	is a requirement that of 14.3.1.2 that cor	at is different for tains the reference to
					Proposed	Response	Response Status W	-	
					PROP	OSED ACCEPT	IN PRINCIPLE.		
					In the	title of Clause 14	4, change "and type 10BA	ASE-Te" to "includin	g type 10BASE-Te".
					14.1.1 "Suppo require	- Change not to ort for both 10B/ ed".) read: ASE-T and 10BASE-Te s	ignal levels in a sing	le device is not
					14.1.1 "The p "The p	.3 - Change text erformance spe erformance spe	t on page 16, line 5 from: crifications of the 10BASE crifications of the 10BASE	-T simplex" to: -T except 10BASE-	Te simplex"
					14.3 -	Delete additiona	al sentence "This subclau	se also defines the	"
					14.3.1 "For a "For a	.2 Change page type 10BASE-T type 10BASE-T	17, line 8 from: MAU, insertion ." to: MAU that is not a type 1	0BASE-Te MAU, in:	sertion ."
					Chang	e text on page ?	18, line 34 from:		

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 U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

Comment ID # 101

"data sequences for a type 10BASE-T MAU." to: "data sequences for a type 10BASE-T MAU that is not a type 10BASE-Te MAU."
Change text on page 18, line 44 from: ". Figure 14-7 for 10BASE-T and ." to: ". Figure 14-5 for 10BASE-T except 10BASE-Te and ."

Change text on page 19, lines 12, 18 and 25 from: ", for 10BASE-T and ." to: ". for 10BASE-T except 10BASE-Te and ."

Change text on page 19, line 52 from:

". for a 10BASE-T MAU." to:

", for a 10BASE-T MAU that is not a 10BASE-Te MAU."

CI 74	SC 74.7.4.8	Р	L	# 102
Thaler. Pat		Broadcom		

Comment Status D Comment Type **TR**

The response to 384 on the first Working Group ballot has not been fully implemented. FEC does not have "frames", it has blocks

SuggestedRemedy

All instances of "frame" in Claause 74 should be replaced with "block".

Proposed Response Response Status W PROPOSED ACCEPT.

Change "frame" to "block" at the following locations:

Page 233, line 11, 15 and 19.

C/ 28C	SC 28C.12	P 258	L 33	# 103
Woodruff.	Bill	Aquantia		

Comment Type **T** Comment Status D

This is a "pile on" to comment #20192. Annex 28C and Clause 45.2.7.13a and clause 45.2.7.14a require new EEE next pages and new message codes that add 1/2 second during autonegotiation. This is unnecessary time.

Submitted as TR, changed to T

SuggestedRemedy

Use the existing NP and XNP to control advertising of BASE-T EEE

Proposed Response Response Status W

PROPOSED REJECT.

The BRC will discuss whether there is sufficient support to overturn the resolution in previous drafts.

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 U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

DOOLIN, DIA	a		Applie				
Comment There I believ "Expec word re contain	<i>Type</i> was a c /e that t xted" is eads wir n strong	ER comment #' the issue st defined as th a level o ger wording	Comment Status 10511 that was issu till exists with the no "considered likely of uncertainty. Notes J.	D led agair ote. or probab are use	nst the note in 1 ble to happen or d to call attentio	4.1.1. arrive." The use o on; therefore, it sh	of the ould
Suggested	Remed	'y					
Chang Suppo	e to rea rt for bo	id: oth 10BASE	E-T and 10BASE-Te	e in a sin	gle device is no	t requried.	
Proposed I	Respon	se	Response Status	w			
PROP	OSED A	ACCEPT IN	N PRINCIPLE.				
See re	solution	of comme	ent #101.				
CI 24	SC 2	24.2.4.4	P4	0	L15	# 105	
Dove, Dan			HP N	ətworkinç	g		
Comment	Туре	TR	Comment Status	D			
The ID happer to BAD which	ENTIF) n in this) SSD n would c	/ JK state h state and nust be cha ause a FA	has an exit vector w thus the vector wou anged because an / LSE CARRIER indi	ith criteri Ild never I/P/ satis cation.	ia "rx_bits[9:0] = be used. In ado fies the criteria	= /I/P/. This canno dition, the vector g to enter that state	i oing
Suggested	Remed	'y					
This ve from C	ector sh ARRIE	ould come R DETECT	from the CARRIER into BAD SSD to b	DETEC	T state. In addi [9:5] = /l/ * rx_b	tion, change the c bits[4:0] <> /J/.	riteria
Proposed I	Respon	se	Response Status	z			
REJEO	CT.						

P15

L 22

This comment was WITHDRAWN by the commenter.

IEEE P802.3az D2.2 Energy Efficient Ethernet comments

C/ 14

Devil Devil

SC 14.1.1

Comment ID # 105

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104

Anslow Peter	P Nortel Networ	L	# 106	Cl 24 Cobb Terr	SC 24.1.2	F	31	L 19	# 108
Comment Type T	Comment Status D	K5		Comment	y Type T	Comment Stati			
The comparison docu from the draft cannot e	ment only shows added text (in easily be seen.	n blue). This me	eans that deletions	Mainte	enance request #	1207 The objective	1) is corre	ct as it is writter	٦.
SuggestedRemedy Please show additions other projects have do	s and deletions (in strikeout an one.	d red) in the cor	nparison document as	The ob UTP w compa is corre	ojectives are mea vas important beo ared to screened ect. It is the lowe	ant to serve as goa cause there are mo or shielded system st common denom	s at the sta re impairm s. So distir nator.	art of a project. E ents due to nois nguishing UTP a	Being able to run over e, crosstalk, and EMC; as a minimum objective
Proposed Response	Response Status W			ر معاد ا	don't believe vou	should change ob	actives the	t were true at th	e time
PROPOSED REJECT	Γ.			Taiso C	IDomodu	should change obj			
The way document co	ompare works in Frame, the file	e that shows del	etions messes up all	Suggested	maintenance re	nuest #1207			
the numbering so it is	not very useful.			Proposed	Response	Boononno Statu	~ W		
C/ 24 SC 24.1.2	P 31	L 19	# 107	PROP	OSED REJECT.	Response Statu	S VV		
Cobb, Terry	CommScope			See co	omment #107				
Comment Type T	Comment Status D								
reflects what is in the	TP-PMD standard which is wh	at this clause us				- '	250	2.50	# 105
The TP-PMD standard cabling, see Annex E The objectives are me UTP was important be compared to screened is correct. It is the lowe	d is specifically written to focus of ANSI X3.263-1995. eant to serve as goals at the st ecause there are more impairm d or shielded systems. So disti est common denominator.	art of a project. ents due to nois nguishing UTP a	UTP and 150 ohm STP Being able to run over se, crosstalk, and EMC; as a minimum objective	Diab, Wael Comment Comm nomen of repl on L2 v than 75	Type TR notature to the on acing Tw_sys wi with the incorrect 8.4, specifically f	Bro Comment Statu 1 requested a char e adopted by the w th Tw_sys_tx was I t older nomenclatur or 79 and to check	adcom ge from Tv rake-shrink imited to or re. For L2 p if C30 or C	v_sys to Tw_sys age ad-hoc. Ne nly 78.4, leaving ourposes the sco 30 annexes nee	s_tx to update the L2 vertheless, the scope other dependent area ope ought to be more ed updating.
The TP-PMD standard cabling, see Annex E The objectives are me UTP was important be compared to screened is correct. It is the lower I also don't believe you	d is specifically written to focus of ANSI X3.263-1995. eant to serve as goals at the st ecause there are more impairm d or shielded systems. So disti est common denominator. u should change objectives the	art of a project. nents due to nois nguishing UTP a	UTP and 150 ohm STP Being able to run over se, crosstalk, and EMC; as a minimum objective ne time.	Diab, Wael Comment Comm nomer of replion on L2 than 75	Type TR tent #110 on D2. totature to the on acing Tw_sys wi with the incorrec 8.4, specifically f IRemedy	Bro Comment Statu 1 requested a char e adopted by the w th Tw_sys_tx was l t older nomenclatu or 79 and to check	adcom ge from Tv ake-shrink imited to or e. For L2 p if C30 or C	v_sys to Tw_sys age ad-hoc. Ne ily 78.4, leaving vurposes the sco 30 annexes nee	s_tx to update the L2 vertheless, the scope other dependent area ope ought to be more ed updating.
The TP-PMD standard cabling, see Annex E The objectives are me UTP was important be compared to screened is correct. It is the lowe I also don't believe you SuggestedRemedy Reject maintenance re	d is specifically written to focus of ANSI X3.263-1995. eant to serve as goals at the st ecause there are more impairm d or shielded systems. So disti est common denominator. u should change objectives the equest #1206 <i>Response Status</i> W	art of a project. nents due to nois nguishing UTP a	UTP and 150 ohm STP Being able to run over se, crosstalk, and EMC; as a minimum objective ne time.	Diab, Wael Comment Comm nomer of repl: on L2 than 7: Suggested For the done in negotia else ap	Type TR ient #110 on D2. iclature to the on acing Tw_sys wir with the incorrec 8.4, specifically f <i>IRemedy</i> e purposes of Lar n comment #110 ated paramaeter oplicable	Bro Comment Statu 1 requested a char e adopted by the w th Tw_sys_tx was I t older nomenclatur or 79 and to check yer 2, update the e on D2.1. Specifica references in C78.	adcom s D ge from Tv rake-shrink imited to or re. For L2 p if C30 or C ntire draft te Ily, change 4, C79 and	v_sys to Tw_sys age ad-hoc. Ne by 78.4, leaving burposes the scc 30 annexes nee o match the non Tw_sys to Tw_ I C30, where ap	s_tx to update the L2 vertheless, the scope other dependent area ope ought to be more ed updating. nenclature change sys_tx for the Layer 2 plicable and wherever
The TP-PMD standard cabling, see Annex E The objectives are me UTP was important be compared to screened is correct. It is the low I also don't believe you uggestedRemedy Reject maintenance re roposed Response PROPOSED REJECT	d is specifically written to focus of ANSI X3.263-1995. eant to serve as goals at the st ecause there are more impairm d or shielded systems. So disti est common denominator. u should change objectives that equest #1206 <i>Response Status</i> W	art of a project. nents due to nois nguishing UTP a	UTP and 150 ohm STP Being able to run over se, crosstalk, and EMC; as a minimum objective ne time.	Diab, Wael Comment Comm nomen of repla on L2 than 76 Suggested For the done in negotia else ap Proposed I	Type TR tent #110 on D2. telature to the on acing Tw_sys wi with the incorrec 8.4, specifically f <i>IRemedy</i> the purposes of La n comment #110 ated paramaeter oplicable <i>Response</i>	Bro Comment Statu 1 requested a char e adopted by the w th Tw_sys_tx was I t older nomenclatur or 79 and to check yer 2, update the e on D2.1. Specifica references in C78. Response Statu	adcom s D ge from Tv rake-shrink imited to or e. For L2 p if C30 or C htire draft to lly, change 4, C79 and s W	v_sys to Tw_sys age ad-hoc. Ne aly 78.4, leaving ourposes the sco 30 annexes nee o match the non Tw_sys to Tw_ I C30, where ap	s_tx to update the L2 vertheless, the scope other dependent area ope ought to be more ed updating. nenclature change sys_tx for the Layer 2 plicable and wherever
The TP-PMD standard cabling, see Annex E The objectives are me UTP was important be compared to screened is correct. It is the lowe I also don't believe you SuggestedRemedy Reject maintenance re Proposed Response PROPOSED REJECT The footnote was adde	d is specifically written to focus of ANSI X3.263-1995. eant to serve as goals at the st ecause there are more impairm d or shielded systems. So disti est common denominator. u should change objectives the equest #1206 <i>Response Status</i> W ed to execute the result of Mot	art of a project. hents due to nois nguishing UTP a at were true at th	UTP and 150 ohm STP Being able to run over se, crosstalk, and EMC; as a minimum objective ne time.	Diab, Wael Comment Comm nomer of repla on L2 than 7 Suggested For the done i negotia else ap Proposed I PROP	Type TR ient #110 on D2. iclature to the on acing Tw_sys wi with the incorrec 8.4, specifically f <i>IRemedy</i> e purposes of Lain n comment #110 ated paramaeter oplicable <i>Response</i> OSED ACCEPT.	Bro Comment Statu 1 requested a char e adopted by the w th Tw_sys_tx was I t older nomenclatui or 79 and to check yer 2, update the e on D2.1. Specifica references in C78. Response Statu	adcom s D ge from Tv ake-shrink imited to or re. For L2 p if C30 or C ntire draft te Ily, change 4, C79 and s W	v_sys to Tw_sys age ad-hoc. Ne by 78.4, leaving purposes the scc 30 annexes nee o match the non Tw_sys to Tw_ I C30, where ap	s_tx to update the L2 vertheless, the scope other dependent area ope ought to be more ed updating. nenclature change sys_tx for the Layer 2 plicable and wherever
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Cl 78 SC 78.4 P230 L30 # 110	CI 78 SC 78.4 P230 L30 # 111				
Diab, Wael Broadcom	Diab, Wael Broadcom				
Comment Type TR Comment Status D Part of the adopted resolution to comment #110 on D2.1, a change in the assignment in the init state to be LOCAL INITIAL TX VALUE and LOCAL INITIAL RX VALUE. This inadvertantly had the opposite effect of what we were trying to do as it leaves the start values to the system instead of the times defined by table 78-4 SuggestedRemedy There are two ways that could resolve this. Either: (a) Rather than change assignments in init state, change Tw_phy to Tw_sys_tx in 78.4.2.2 PHY WAKE VALUE and 79 where it occurs. I believe this occurs in 3 places total (2 in 79	Comment Type TR Comment Status D Comment #111 on D2.1 requested a change so that the negotiated Tw_sys_tx parameter should be rounded up to the nearest integer usec to fit within the byte length fields available. This was necessary since there were no decimal points when we first introduced the parameters , however, the wake shrinkage adhic settled on numbers that had fractional ammounts which would eat up the length of the TLVs. The issue with the adopted resolution is that it was specific to a sentence in that section. All negotiated and exchanged parameters in Layer 2 do not have fractional values and that should be clearly stated throughout any references to negotiated Tw_sys_tx				
and 1 in 78.4.2.2).	SuggestedRemedy				
or	For the purposes of Layer 2, all values need to be rounded to the nearest usec (i.e. not just for initialization params).				
(b) initializing everything to PHY WAKE VALUE The second proposal maybe simpler as it reduces two constants in the draft. Nevertheless, I included both for discussion in case there was something missed	Statements can be inserted in C78.4, C79 and C30 where applicable and wherever else applicable				
	PROPOSED ACCEPT.				
Proposed Response Response Status W					
PROPOSED ACCEPT IN PRINCIPLE.	Cl 55 SC 55.3.5.4 P200 L13 # 112				
Implement option (b) in the suggested remedy	Brown, Matt Applied Micro (AMCC)				
	Comment Type TR Comment Status D LATE Figure 55-15a. If a normal retrain occurs while a PHY transmitter is in LPI mode, there is no specified mechanism to abort the LPI mode (TX_L state) in the PCS 64B/65B transmit state diagram. Item Comment State Stat				
	SugaestedRemedv				
	Provide a mechansim to cause transition to TX_INIT when normal retrain (exit from PCS_DATA state in Figure 55-24) occurs.				
	Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.				
	The editor proposes using tx_mode != SEND_N as a transition into the TX_L state. This guarantees that any retrain attempt resets the state machine. Add tx_mode != SEND_N as a transition condition into TX_L.				

<i>CI</i> 55 Brown, Matt	SC 55.3.5.4	P 20 Applie)2 d Micro (AM	L 10 ICC)	# 113			
Comment Type TR Comment Status D LATE Figure 55-15a. If a normal retrain occurs while a PHY receiver is in LPI mode, there is no specified mechanism to abort the LPI mode (RX_L state) in the PCS 64B/65B transmit state diagram. Image: Comment Status Image: Comment Status <td< td=""></td<>								
SuggestedRemedy Provide a mechansim to cause transition to RX_INIT state when normal retrain (exit from PCS_DATA state in Figure 55-24) occurs.								
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.								
The editor proposes using tx_mode != SEND_N as a transition into the RX_L state. This guarantees that any retrain attempt resets the state machine.								

Add tx_mode != SEND_N as a transition condition into RX_L.