# IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

Laubach. Mark Broadcom Corporation	C/         100         SC         100.2.8.1         P 73         L 37         # 2434           Haiduczenia. Marek         Bright House Network
Comment Type ER Comment Status D	Comment Type TR Comment Status A
This is an editor's comment: there are previously embedded conditionals in this clause file.	"Occupied bandwidth (Occupiedbandwidth) is the sum of the bandwidth (RF spectrum) in
SuggestedRemedy Confirmed with Joe Solomon. Can remove all conditional tags and any text in Clause 100 fm file. Proposed Response Response Status W	all channel frequency allocations (e.g., 6 MHz channelsize) that are occupied by the OFDM channel (OFDMchannelbandwidth). Even if one active subcarrier of an OFDM channel is placed in a given standard channel frequency allocation, that standard channel frequency allocation in its entirety is said to be occupied by the OFDM channel" - definition does not correspond to equation 100-1
PROPOSED ACCEPT.	SuggestedRemedy
C/ 100         SC 100.2.11.2.1         P 84         L 36         # 2659           Laubach, Mark         Broadcom Corporation         Environ         Environ         Environ	Equation indicates that occupied bandwidth is a product of 6MHz channel size and ceiled number of 6MHz channels fitting into a single OFDM channel. That is dramatically different from the definition written in words.
Comment Type ER Comment Status D Table note #3 not referenced in Table 100-5 and appears to be dangling as a mistake.	Also, some vague terms without any definition and meaning "standard channel frequency allocation"
SuggestedRemedy Line 38, replace superscript "1,2" with just "1". Page 85 Line 1 through 4, collapse into single table note 1.	Seems that the second sentence in the definition is not connected with occupied bandwidth in any way and fits more into OFDM channel definition: Even if one active subcarrier of an OFDM channel is placed in a given standard channel frequency allocation, that standard channel frequency allocation in its entirety is said to be occupied by the OFDM channel" - either remove it or move it to definition of OEDM channel
Proposed Response Response Status W	Response Response Status W
PROPOSED ACCEPT.	ACCEPT IN PRINCIPLE. The equation is correct. The ceiling of 6.05 MHz with a significance of 6 produces 12 as a result. This behavior corresponds to the text following "Even if one active subcarrier." change divide symbol to forward slash "/".
	C/ 100 SC 100.2.8.1 P 73 L 44 # 2670
	Laubach, Mark Broadcom Corporation
	Comment Type ER Comment Status D
	Typos and editor note no longer needed
	Typos and editor note no longer needed SuggestedRemedy
	Typos and editor note no longer needed SuggestedRemedy 1) Change ".Occupiedbandwidth" to "Occupied bandwidth" in equation on line 44. 2) Remove editor's note on line 46.

C/ 100 SC 100.2.8.1

# IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

C/ 100 SC 100.2.8.1.1 P74 L 26 # 2438	C/ 100 SC 100.2.8.1.1 P76 L48 # 2441
Hajduczenia, Marek Bright House Network	Hajduczenia, Marek Bright House Network
Comment Type TR Comment Status A	Comment Type TR Comment Status A
Awkward wording starting with the words "For purposes of spurious emissions requirements, the "commanded transmit power per channel" for an equivalent 6 MHz	A lot of notes under Table 100-1,/2/3 cover the testing conditions, and how individual parameters are verified in lab conditions
channel is computed as follows: until line 36	SuggestedRemedy
SuggestedRemedy Change to the following: CLT is configured with a number of parameters, namely:	Test conditions and verification process should be described in a subclause on measurements, similar to 75.7 Definitions of optical parameters and measurement methods. This is how specs are typically structured in 802.3. We do not mix testing and measurement description in the section with requirements.
-number of 6 MHz channels, and power level for each 6 MHz channel	Response Response Status W
occupied 6 MHz channels) for that OFDM channel. Using these configured parameters, the CLT calculates the commanded transmit power per channel for an equivalent 6 MHz channel, using the following information: -power for data subcarrier and pilots (calculated using total number of active subcarriers), -power in 400 kHz of spectrum containing the PHY Link, -power calculated for the 6 MHz band centered on the PHY Link is the commanded average power of an equivalent 6 MHz channel for that OFDM channel	ACCEPT IN PRINCIPLE. Add editors note: EDITORS NOTE (remove prior to publication): Test conditions and verification process should be described in a subclause on measurements, similar to 75.7 Definitions of optical parameters and measurement methods. This is how specs are typically structured in 802.3. We do not mix testing and measurement description in the section with requirements.
Response Response Status W	C/ 100 SC 100.2.8.1.1 P78 L 32 # 2657
ACCEPT IN PRINCIPLE.	Laubach, Mark Broadcom Corporation
Change: "For purposes of spurious emissions requirements, the "commanded transmit power per channel" for an equivalent 6 MHz channel is computed as follows:" to	Comment Type ER Comment Status D Line 32: wrong text font. Line 50 and 51: extra "-"
"For the purposes of meeting spurious emissions requirements, the CLI transmit power for each OEDM channel shall be configured as follows:"	SuggestedRemedy
C/ 100 SC 100.2.8.1.1 P74 L 46 # 2656	Line 32: Fix text font. Line 50 and 51: remove "-" before "channel".
Laubach, Mark Broadcom Corporation	Proposed Response Response Status W
Comment Type ER Comment Status D editors note no longer needed	PROPOSED ACCEPT.
SuggestedRemedy remove editors note	
Proposed Response Response Status W PROPOSED ACCEPT.	

C/ 100 SC 100.2.8.1.1

# IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

<i>Cl</i> <b>100</b> Laubach, I	SC <b>100.2.8.1.</b> Mark	I P 80 Broadcom	L 37 Corporation	# 2658	<i>Cl</i> <b>100</b> Hajduczen	SC 100.2.9 iia, Marek	P <b>81</b> Bright House	L 50 Network	# 2450
<i>Comment</i> Table	<i>Type</i> <b>ER</b> 100-3 header prol	Comment Status D	ot be header. This	is a framemaker	Comment Plenty	Type ER	Comment Status D	marked with TE	3Ds to make sure that
proble	em. Also need to c	changing "ceiling[]" to ap	propriate ceiling sy	mbol brackets.	they d	o not spli throu	gh cracks.		
Suggestee	dRemedy				Suggested	Remedy			
Move	equation out of tal	ble cell into numbered ed	quation paragraph.	Change the "ceiling[]"	Per co	omment			
notatio	on to the appropria	ate ceiling brackets in the	e equation symbol e	editor.	Proposed	Response	Response Status W		
Add a dBc va	new paragraph be alues enumerated	efore the new equation. ' in Table 100-3. The ceilin	Equation 100-x is under the function used in	used to generate the this equation 100-x	PROP	OSED ACCEP		ente ville les est	
round: result.	s to the next highe ."	r 0.5 dBc. For example,	the ceiling of -63.9	will produce -63.5 as a	the pi	empty subclaus	Upstream Electrical Requirem ses under subclause 100.2.9	ents will also ac	dress modification of
Delete	e table note 1 on p	age 81 line 38 and renu	mber.		C/ 100A	SC CV.2	P 273	L 10	# 2518
Proposed	Response	Response Status W			Hajduczen	iia, Marek	Bright House	Network	
PROP	POSED ACCEPT.				Comment	Type ER	Comment Status D		
C/ 100	SC 100 2 8 2	D 77	/ 28	# 2660	Titles	and template o	f this Annex is off. Please use	the official temp	plate
Laubach, I	Mark	Broadcom	Corporation	# 2000	Suggested Update	<i>Remedy</i> e headings in th	nis annex to match proper nur	nberina. Fix fiau	ıre numberina.
Comment	Type ER	Comment Status D			Proposed	Pesnonse	Boononoo Statua W		g.
Chang right p	ge "ceil[]" to approparens line 32.	priate symbol brackets for	or ceiling lines 28/2	9 and 32/33. Missing	PROP		T IN PRINCIPLE.	available at the	time Possible
Suggestee	dRemedy				format	tting was mixed	up along the way. Formates	will be updated	per current template.
Either Frame single	find an acceptable maker unnumber guote and right pa	e symbol font that has ce ed equation. On lin 32, arens: ')	eiling brackets or co change was looks	onvert equation to like a double quote to a	Cl <b>101</b> Remein D	SC 101.1	P 89 Huawei Tech	L 5	# 2640
Proposed	Response	Response Status W					Comment Status D	literegiee	
PROP	POSED ACCEPT.				Need	to expand map	ping table for variable to Cl 45	registers	
					Suggested See re	<i>lRemedy</i> emein_3bn_14_	_1114.pdf		
					Proposed PROP	Response OSED ACCEP	Response Status W		

C/ 101 SC 101.1

C/ <b>101</b> Kliger, Av	SC 101.3.2.4	P <b>103</b> Broadcom	L 18	# 2716	<i>Cl</i> <b>101</b> Laubach, I	SC <b>101.3.2</b> . Mark	.5.3	P 108 Broadcom C	L <b>40</b> orporation	# 2662
Kliger, Av Comment In the Suggeste correc Proposed PROF	Type <b>T</b> US/DS column ir dRemedy to DS/US in Table Response POSED ACCEPT.	Broadcom Comment Status D Table 101-4 the two lower of 101-4 accordingly Response Status W	codes should be	US and not DS	Laubach, I Comment If appi The b FEC e Suggested Repla To PM As pe 1) Add 2) Add 3) Add As pe	Mark <i>Type</i> <b>TR</b> roved in anothe ottom of the figu- encoder that per <i>dRemedy</i> ce the "Scramb IA". r laubach_3bn_ d new function to d new figure 101 r laubach_3bn_	Comment, thure then needs forms PMA C ler" text from to 101.3.2.5.9 to 101.3.2.5.10 1-10 for Transi 14_1114.pdf:	Broadcom Co at Status <b>D</b> e Scrambler will s to be updated lient function dir the bottom box i page 1: 9 Variables 9 Functions fer to PMA.	n the figure and	A Symbol Mapper. porate new process into paths are a bit stream. replace with "Transmit
					1) Add fix typ Sectic downs Secito replac As pe 1) Add 2) Add 3) Add	d transferToPM o, change FEC on 100.1.4, Page stream as per 49 on 101.3.3.1.3, F e with PMA_UN r laubach_3bn_ d and update to d function to 10° d new figure bef	A()to bottom o _DS_CodeWo e 68, Line 17: 9.2.7. Page 116, Line IITDATA.indic 17_1114.pdf: 101.3.3.1.5 Func ore Figure 10	of CALCULATE_ ordSize to Fc remove Gearbo e 39. Change re ation() 'ariables tions 1-12 for Transfe	CRC40_AND_F x functional bloc emove box and t r from PMA	PARITY state and k, no longer needed in (DE)SCRAMBLER,
					Sectic laubac comm 1) call 2) cor <i>Proposed</i> PROF Note t Modifi	on 101.3.3.1.7, F ch_3bn_18_111 ent round for re- to transferFrom rects FEC coun <i>Response</i> POSED ACCEP his comment af cation to Fig 10 cation to Fig 10	Page 116, line 4.pdf. This fix move CQ bloc nPMA() ters as per tex <i>Response</i> T. fects cl 101 & 11-7 is availab	e, replace state o xes changes tha cking. This add xt remedy in ear e Status W c cl 100 so editor le in file remein_ ble in file remein_	liagram with t should have b s: lier comment thi changed from ( _3bn_02_1114.p 3bn_03_1114.	een submitted last s found Cl 101 to Cl 00. df pdf

C/ 101 SC 101.3.2.5.3

-					-					
<i>Cl</i> <b>101</b> Laubach,	SC 101.3.2.6 Mark	P 1 Broad	13 <i>L</i> 39 Icom Corporation	# 2667	<i>Cl</i> <b>101</b> Remein, D	SC <b>101.3.3.</b> Duane	1.2	P <b>115</b> Huawei Tech	L <b>25</b> inologies	# 2642
Comment Scrar initial Secti PMA well a Suggeste As pe 1) Se 2) 10 3) 10 Proposed PROI Chan	t Type <b>TR</b> mbler being moved lization to downstre on 101.4.3.6 Syml _UNITDATA.reque as NCP calculation edRemedy er laubach_3bn_12 ection 101.3.2.6 m 1.4.3.6.1 Introduct 1.4.3.6.5 "NCP ca d Response POSED ACCEPT. nged to section 107	Comment Status d from PCS to PMA. earn frame. bol Mapper introduct est information, as w 2_1114.pdf: oved to Section 101. ion updated lculation" added Response Status	D Need to clarify synchronic ion, needs to be update ell as symbol mapper us 4.3.6.4 W	onization and ed for se and initialization, as	Comment We ind Suggested Create remeir Chang The Fl uncorr layers not ma decod value 4 does r decod the bir 9th, 17 To: The Fl CRC4 contai CRC4 FEC d binary not ma indicat binary 17th, 2	Type <b>T</b> dicate there is a dRemedy e a variable CRC n_3bn_14_1114. ge wording from: EC decoder in the rectable FEC con- . If this user-con- atch the value of ler replaces bit < of "11". If this user- the replaces of "11". If atch the value of "11" in 25th, etc. as well Response	Comment user configur 240ErrCtrl and .pdf). he CNU shall deword (due t figurable optic CRC40 retrie 0> and <1> in rer-configurab lue of CRC40 error to the PC " in the first 6 s well as the lat he CNU shall cate an uncorr igher layers. I th the value of S bit <0> and CRC40ErrCtt CRC40ErrCtt CRC40ErrCtt i CRC40 retrie the first 64B/d I as the last 6	t Status <b>D</b> able variable bu d include in MDI provide a user- o an excess of so on is enabled ar wed from the re o the sync head le option is enabled or retrieved from CS by replacing 4B/66B block and exctable FEC co f CRC40ErrCtrl CRC40 retrieved <1> in the sync 1 is enabled and exced from the re olacing bit <0> a 56B block and e 4B/66B block from	ut never identify i O Mapping table configurable opti- symbols contain nd the calculated ceived FEC cod ers in all 64B/66 bled and the calculated the received FEC bit <0> and <1> nd every 8th 64E ck from the error configurable opti- deword (due to a is enabled and t ed from the rece headers in all 64 d the calculated ceived FEC cod und <1> in the sy every 8th 64B/66 om the errored F	t. e (see on to indicate an ing errors) to higher I value of CRC40 does eword, the FEC B blocks with the binary culated value of CRC40 C codeword the FEC in the sync header with 3/66B block, e.g. 1st, red FEC codeword. on (variable an excess of symbols he calculated value of ived FEC codeword, the IB/66B blocks with the value of CRC40 does eword the FEC decoder nc header with the B block, e.g. 1st, 9th, FEC codeword.
					rioposeu	Response	Response	Status VV		

PROPOSED ACCEPT.

C/ 101 SC 101.3.3.1.2

C/ 101	SC 101.3.3.1.7	P 119	L 13	# 2668	C/ 101	SC 101.3	.3.2	P <b>120</b>	L <b>26</b>	# 2608
Laubach, M	ark	Broadcom Cor	poration		Remein, D	uane		Huawei Techn	ologies	
Comment 7 1) Line 2) Line to be m DECOE	ype <b>TR</b> 12-15 FEC statistic 41, both FEC statistic oved to a separate DE_FAIL and DECC	Comment Status <b>D</b> es counter initialization in the stics increments are inside state placed between DEC DDE_SUCCESS to be outs	e wrong place the block cour CODE_CALCU ide the loop.	Fig 101-12 e. ht loop, these each need JLATE_CRC40 and	Comment Blank Suggested Move t	<i>Type</i> <b>T</b> section. <i>IRemedy</i> the para from	Con pg 115 In	nment Status D 25 starting "The FEC of licate to 101 3 3 2	decoder in the	e CNU shall provide a
Suggested 1) Move "FecCo FecCoc FecCoc inti the	Remedy e the lines: deWordCount <= 0 leWordFail <= 00 leWordSuccess <= INIT block	) : O"			Replac detect Proposed PROP	ce the moved FEC codewo Response OSED ACCE	test in 101 ord success <i>Resp</i> PT.	.3.3.1.2 with "The FE0 ses and failures. See 1 ponse Status W	C decoder ma 01.3.3.2 for c	intains error monitors to letails.
2) Crea labeled COUNT betwee COUNT new CC Note th Proposed F	Te a new state betw COUNT_FAIL. Mo "FAIL. Exit COUN DECODE_CALC SUCCESS. Mov DUNT_SUCCESS. ese changes may to Response F DSED ACCEPT	veen DECODE_CALCULA bye FecCodeWordFail ++ f NT_FAIL to DECODE_FAIL CULATE_CRC40 and DECO re FecCodeWordSuccess + Exit COUNT_SUCCESS to take some creative rearrang Response Status W	TE_CRC40 a rom DECODE with a UCT. DDE_SUCCES of the dia DECODE_S ging of the dia	nd DECODE_FAIL, _FAIL to the new Create a new state SS, labeled DE_SUCESS to the UCCESS with a UCT. gram to fit on one page.	C/ 101 Remein, D Comment See re Add U Suggested Shorte	SC 101.4 uane Type T lated comme S/DS data ra IRemedy en names to I	2.1.2 Con nt against te variable DS_DataRa	P 124 Huawei Techn Inment Status D 45.2.1.122 pg 44 In22 to mdio mapping table	L 24 nologies ee remein_3b	# <u>2601</u> <i>DataRate</i> n_14_1114.pdf
The edi See cm	tor believes this fix t 2644	is shown in laubach_3bn_	18_1114.pdf. /	Author to confirm.	Proposed PROP	Response OSED ACCE	Resp PT.	oonse Status W		
<i>Cl</i> <b>101</b> Remein, Du	SC 101.3.3.1.7 ane	P 119 Huawei Techno	L <b>9</b> blogies	# 2644	<i>Cl</i> <b>101</b> Remein, D	SC 101.4 uane	2.2.1	P <b>125</b> Huawei Techn	L <b>8</b> ologies	# 2645
Comment T Seems reset or SuggestedH Move th loose F Proposed F PROPC See cm	ype <b>T</b> odd that FecCode h every FEC codew Remedy hese assignments t EC alignment. Response F OSED ACCEPT. t 2668	Comment Status D NordCount, FecCodeWord ord that is decoded. to INIT state. Author to veri Response Status W	Fail, & FecCo fy these then o	Fig 101-12 deWordSuccess get don't get reset if we	Comment This se downs size Fl Suggested Rewor "In the compo Proposed I PROP	Type <b>T</b> entence mak tream directi EC_DS_Cod /Remedy d to: downstream osed of single Response OSED ACCE	Con es it sound on, the burs eWordSize direction, t FEC code <i>Resp</i> PT.	nment Status <b>D</b> like we use burst trans st received by the CNU bits." the continuous data st words of size FEC_DS ponse Status <b>W</b>	smission in th J is always a ream received S_CodeWord	e DS direction: "In the single FEC codeword of d by the CNU is always Size bits."

C/ 101 SC 101.4.2.2.1

IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

Remein, Duane       Huawei Technologies       Remein, Duane       Huawei Technologies         Comment Type       T       Comment Status       D         It is not clear what is meant by the statement 'PMA_UNITDATA.indication is used by the client's synchronization process."       T       Comment Type	C/ 101 SC 10	1.4.2.5	P <b>124</b>	L <b>52</b>	# 2650	C/ 101	SC 101.4	3.10	P 144	L <b>40</b>	# 2648
Comment Type       T       Comment Status       D         Lis not clear what is meant by the statement "PMA_UNITDATA.indication is used by the client's synchronization process."       D         SuggestedRemedy       Add ed note after the para: EDITORS NOTE (to be removed prior to publication): a precise description of what is meant by "PMA_UNITDATA.indication is used by the client's synchronization process." is needed.       D         Proposed Response       Response Status       W         PROPOSED ACCEPT.       Att Mark         C1 101       SC 101.4.2.7.3       P 139       L 14       # 2622         Comment Type       T       Comment Status       D         Given that this is a standard and not an implementation does this have any meaning?       The parent should refer to a system variable "Scorem: Status       W         PROPOSED ACCEPT.       Comment Type       T       Comment Status       D         Suggested/Remedy       T       Comment Status       D       PROPOSED ACCEPT.         C1 101       SC 101.4.3.1       P 125       L 43       # 2646         Remein, Duane       Huawei Technologies       Comment Type       T       Comment Status       D         Proposed Response       Response Status       W       PROPOSED ACCEPT.       Ci 101       SC 101.4.3.1       P 125       L 43       # 2646	Remein, Duane		Huawei Techn	ologies		Remein, Dua	ane		Huawei Techn	ologies	
It is not clear what is meant by the statement 'PMA_UNITDATA.indication is used by the clear's exponentization process."       This statement should refer to a system variable 'NCP represents the DS cyclic gets a select from IOGPASS.XP DS CPDM control register (see 45.2 for the CLT." Nor should we use another name (Tsd) to refer to the same variable 'NCP represents the parenter Tsd a select from IOGPASS.XP DS CPDM control register (see 45.2 for the CLT." Nor should we use another name (Tsd) to refer to the same variable 'NCP represents the parenter Tsd a select from IOGPASS.XP DS CPDM control register (see 45.2 for the CLT." Nor should we use another name (Tsd) to refer to the same variable 'NCP represents the parenter table to the same variable 'NCP represents the same v	Comment Type T	- Comm	ent Status D			Comment Ty	/ре Т	Com	ment Status D		
SuggestedRemedy         Add ed note after the para: EDITORS NOTE (to be removed prior to publication): a precise description of what is meant by "PMA_UNITDATA.indication is used by the client's synchronization process" is needed.         Proposed Response       Response Status W         PROPOSED ACCEPT.       P139       L14       # [2622]         Remein, Duane       Huawei Technologies       Comment Type T       Comment Type T       Comment Status D         SuggestedRemedy       Stike the sentence.       Proposed Response       Response Status W         PROPOSED ACCEPT.       Proposed Response       Response Status W         PROPOSED ACCEPT.       Comment Type T       Comment Type T       Comment Status D         SuggestedRemedy       Stick the sentence.       Proposed Response       Response Status W         PROPOSED ACCEPT.       Proposed Response       Response Status D         Proposed Response       Response Status D       Proposed Response         Proposed Response       Response Status D       Proposed Response         SuggestedRemedy       The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       Proposed Response       Response Status W         SuggestedRemedy       Comment Type T       Comment Status D       The variable DS_Nrp represents the samples at the start of this N-point	It is not clear wh client's synchron	at is meant by th ization process.	ne statement "PMA_ "	UNITDATA.ind	ication is used by the	This sta paramet	tement sho er [Tsd] as	uld refer to a select from	a system variable "NO 10GPASS-XR DS OI	CP represents th FDM control reg	e DS cyclic prefix ister (see 45.2.1.108)
Add ed note after the para: EDITORS NOTE (to be removed prior to publication): a precise description of what is meant by "PMA, UNITDATA.indication is used by the client's synchronization process" is needed.       SuggestedRemedy         Proposed Response       Response Status W         PROPOSED ACCEPT.       P139       L14       2622         Cl 101       SC 101.4.2.7.3       P 139       L14       2622         Remein, Duane       Huawei Technologies       Rementation does this have any meaning?       Replace 'NCP' with DS_Ncp' in this section (about 32 instances) and with US_Nc section 101.4.4.13. Note this removes painful subscripting.         SuggestedRemedy       Strike the sentence.       Remein, Duane       Response Status W         PROPOSED ACCEPT.       P144       L46       # 2646         Cl 101       SC 101.4.3.1       P 125       L 43       # 2646         SuggestedRemedy       Strike the sentence.       Comment Type T       Comment Status D       This statement should refer to a system variable "The NP samples at the start of this N-point IDFT are copied and appended*. Also need to distinguish DS from US.         Cl 101       SC 101.4.3.1       P 125       L 43       # 2646         Comment Type T       Comment Status D       The variable DS_Nrp represents the samples at the start of this N-point IDFT are copied and appended*. Also need to distinguish DS from US.         SuggestedRemedy       S	SuggestedRemedy					for the C we need	LI." Nor st to distinau	iould we us ish US from	e another name (Iso n DS.	I) to refer to the	same variable. Lastly
Build of wind is final for the DATA. Indication is used by the cleft is synchronization process? is needed.         Proposed Response       Response Status         W       PROPOSED ACCEPT.         Att Mark       Image: Technologies         Ci 101       SC 101.4.2.7.3       P 139         L 14       Image: Technologies         Comment Type       T       Comment Status         Diven that this is a standard and not an implementation does this have any meaning?       SiggestedRemedy         Strike the sentence.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       Ci 101       SC 101.4.3.1       P 125       L 43       # [2646]         Comment Type       T       Comment Status       D       This statement should refer to a system variable "The NRP samples at the start of this N-point IDFT are copied and appended".       Also need to distinguish DS from US.         SuggestedRemedy       The parenthetical. "ecoluded subcarriery" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       L 43       # [2646]         SuggestedRemedy       The parenthetical.       Comment Status D       D         The parenthetical.       Proposed Response       Response Status W       PROPOSED ACCEPT.         Cl 101       SC 101.4.3.1       P 125       L 43       #	Add ed note afte	r the para: EDIT	ORS NOTE (to be r	emoved prior to	publication): a precise	SuaaestedR	emedv				
Proposed Response       Response Status       W         PROPOSED ACCEPT. Att Mark       PROPOSED ACCEPT. Att Mark       P139       L14       # 2622         CI 101       SC 101.4.2.7.3       P 139       L14       # 2622         Remein, Duane       Huawei Technologies       Response of Tsd with DS_Ncp* in this section (about 32 instances) and with US_Ncp         Comment Type T       Comment Status D       Response Response Response Status W         PROPOSED ACCEPT.       CI 101       SC 101.4.3.1       P 125       L 43       # 2646         Comment Type T       Comment Status D       This statement should refer to a system variable "The NRP samples at the start of this N-point IDFT are copied and appended". Also need to distinguish DS from US.         CI 101       SC 101.4.3.1       P 125       L 43       # 2646         Comment Type T       Comment Status D       This statement should refer to a system variable "The NRP samples at the start of point IDFT are copied and appended". Also need to distinguish DS from US.         Cl 101       SC 101.4.3.1       P 125       L 43       # 2646         Comment Type T       Comment Status D       The variable DS_Nrp represents the samples at the start of this N-point IDFT are copied and appended". Also need to distinguish DS from US.         SuggestedRemedy       Replace two instances of Tsd with DS_Nrp in this section (about 32 instances) and with US_	synchronization	process" is need	led.	dication is used	by the client's	Change	to read:				
PROPOSED ACCEPT. Att Mark       Proposed Response       Proposed Response       Proposed Response       Replace NCP with DS_Ncp* in this section (about 32 instances) and with US_Nc section 101.4.4.13. Note this removes painful subscripting. (see maio mapping table in remein_3bn_14_1114,pdf)         Proposed Response       Response Status W         PROPOSED ACCEPT.       C1 101 SC 101.4.3.1       P 125 L 43 # [2646]         C1 101 SC 101.4.3.1       P 125 L 43 # [2646]         Comment Type T       Comment Status D         Remein, Duane       Huawei Technologies         Comment Type T       Comment Status D         Remein, Duane       Huawei Technologies         Comment Type T       Comment Status D         SuggestedRemedy       Strike the samples at the start of this N-point IDFT are and appended*. Also need to distinguish DS from US.         C1 101 SC 101.4.3.1       P 125 L 43 # [2646]         Comment Type T       Comment Status D         The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.         SuggestedRemedy       SuggestedRemedy         SuggestedRemedy       Change to read: "The variable DS_Nrp & US_Nrp (Table 101–13 & Table 101–13	Proposed Response	Respor	nse Status W			"The var	riable DS_N	cp represer	nts the provisioned du	ration, in OFDM	I clocks, of the DS
Cl 101       SC 101.4.2.7.3       P 139       L 14       #       2622         Remein, Duane       Huawei Technologies       Replace "NCP" with DS_Ncp" in this section (about 32 instances) and with US_Nc esction 101.4.1.3. Note this removes painful subscripting. (see mdio mapping table in remei_3bn_14_i114.pdf)         Comment Type       T       Comment Status       D         Given that this is a standard and not an implementation does this have any meaning? "approximately equal number of rows vs. columns works well"       SuggestedRemedy         SuggestedRemedy       Strike the sentence.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       Cl 101       SC 101.4.3.1       P 125       L 43       #       2646         Comment Type       T       Comment Status       D       This statement should refer to a system variable "The NRP samples at the start of point IDFT are copied and appended". Also need to distinguish DS from US.         Cl 101       SC 101.4.3.1       P 125       L 43       #       2646         Comment Type       T       Comment Status       D       This statement should refer to a system variable "The NRP samples at the start of point IDFT are copied and appended". Also need to distinguish DS from US.         SuggestedRemedy       Change to read:       "Replace two instances of Tsd with DS_Nrp (Table 101-13 & Table 101-resp)."         SuggestedRemedy	PROPOSED AC Att Mark	CEPT.				Replace resp).	two instan	ces of Tsd v	with DS_Ncp & US_N	cp (Table 101–1	2 & Table 101–20
Remein, Duane       Huawei Technologies         Comment Type       T       Comment Status       D         Given that this is a standard and not an implementation does this have any meaning?       "approximately equal number of rows vs. columns works well"       Proposed Response       Response Status       W         Strike the sentence.       Proposed Response       Response Status       W       PROPOSED ACCEPT.         Cl 101       SC 101.4.3.1       P 125       L 43       # 2646         Comment Type       T       Comment Status       D         Remein, Duane       Huawei Technologies       This statement should refer to a system variable "The NRP samples at the start of point IDFT are copied and appended". Also need to distinguish DS from US.         Comment Type       T       Comment Status       D         The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       SuggestedRemedy         SuggestedRemedy       Remove the parenthetical.       Replace two instances of Tsd with DS_Nrp & US_Nrp (Table 101–13 & Table 101-resp).         Replace Response       Response Status       W       Proposed Response         SuggestedRemedy       Remein, Luane       Replace two instances of Tsd with DS_Nrp & US_Nrp (Table 101–13 & Table 101-resp).         Replace Response       Response Status       W	C/ 101 SC 10'	1.4.2.7.3	P 139	L 14	# 2622	Replace	"NCP" with	DS_Ncp" i	n this section (about a	32 instances) ar	nd with US_Ncp in
Comment Type       T       Comment Status       D         Given that this is a standard and not an implementation does this have any meaning?       "approximately equal number of rows vs. columns works well"         SuggestedRemedy       Strike the sentence.         Strike the sentence.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       C/       101       SC 101.4.3.1       P 125       L 43       # 2646         Comment Type       T       Comment Status       D       This statement should refer to a system variable "The NRP samples at the start of point IDFT are copied and appended". Also need to distinguish DS from US.         SuggestedRemedy       The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       SuggestedRemedy         SuggestedRemedy       Remove the parenthetical.       Proposed Response       Response Status       W         Proposed Response       Response Status       W       Proposed Response       Response Status       W	Remein, Duane		Huawei Techn	ologies		(see md	io mapping	table in ren	nein_3bn_14_1114.pd	df)	
Given that this is a standard and not an implementation does this have any meaning?       PROPOSED ACCEPT.         SuggestedRemedy Strike the sentence.       SuggestedRemedy Strike the sentence.       P144       L46       # [264]         PROPOSED ACCEPT.       C/ 101       SC 101.4.3.10       P144       L46       # [264]         C/ 101       SC 101.4.3.10       P144       L46       # [264]         Remein, Duane       Response Status W       PROPOSED ACCEPT.       D         C/ 101       SC 101.4.3.1       P125       L43       # [2646]         Comment Type T       Comment Status D       This statement should refer to a system variable "The NRP samples at the start of point IDFT are copied and appended". Also need to distinguish DS from US.         SuggestedRemedy Remein, Duane       Huawei Technologies       Change to read:       "The variable DS_Nrp represents the samples at the start of this N-point IDFT are and appended"       Replace two instances of Tsd with DS_Nrp & US_Nrp (Table 101–13 & Table 101–13 & Table 101–resp).         SuggestedRemedy Remove the parenthetical.       Response Status W       Proposed Response Response Response Status W       Proposed Response Response Response Status W	Comment Type <b>T</b>	- Comm	ent Status D			Proposed R	esponse	Respo	onse Status 🛛 🛛 🛛 🖤		
SuggestedRemedy       Strike the sentence.         Proposed Response       Response Status       W         PROPOSED ACCEPT.       Huawei Technologies         C/ 101       SC 101.4.3.1       P 125       L 43       # 2646         Comment Type       T       Comment Status       D         The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       SuggestedRemedy         SuggestedRemedy       Remove the parenthetical.       Change to read:       The status of this N-point IDFT are and appended". Also need to distinguish DS from US.         SuggestedRemedy       Remove the parenthetical.       D       Replace NRP with DS_Nrp represents the samples at the start of this N-point IDFT are and appended".         Remove the parenthetical.       Response Status W       Proposed Response	Given that this is approximately e	a standard and equal number of	not an implementat rows vs. columns we	ion does this ha orks well"	ave any meaning?	PROPO	SED ACCE	PT.			
Strike the sentence.       Response       Response Status       W         PROPOSED ACCEPT.       PROPOSED ACCEPT.       Image: The parenthetical "Comment Status D       Image: The parenthetical "Comment Status D       This statement should refer to a system variable "The NRP samples at the start of point IDFT are copied and appended". Also need to distinguish DS from US.         C/ 101       SC 101.4.3.1       P 125       L 43       # 2646         Comment Type       T       Comment Status D       This statement should refer to a system variable "The NRP samples at the start of point IDFT are copied and appended". Also need to distinguish DS from US.         Comment Type       T       Comment Status D       SuggestedRemedy         The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       Replace NRP with DS_Nrp in this section (about 32 instances) and with US_Nrp in 101.4.4.13. Note this removes painful subscripting. (see mdio mapping table in remein_3bn_14_1114.pdf)         Proposed Response       Response Status W       Proposed Response       Response Status W	SuggestedRemedy					C/ 101	SC 101.4	3.10	P 144	L 46	# 2649
Proposed Response       Response Status       W         PROPOSED ACCEPT.       PROPOSED ACCEPT.       Comment Type       T       Comment Status       D         C/ 101       SC 101.4.3.1       P 125       L 43       # 2646         Remein, Duane       Huawei Technologies       SuggestedRemedy       Change to read:       "The variable DS_Nrp represents the samples at the start of this N-point IDFT are and appended"         Remein, Duane       Free parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       D         SuggestedRemedy       Remove the parenthetical.       Response Status       W         Proposed Response       Response Status       W       Proposed Response       Response Status       W	Strike the senter	nce.				Remein, Dua	ane		Huawei Techn	ologies	
PROPOSED ACCEPT.         Cl 101 SC 101.4.3.1       P125 L 43 # 2646         Remein, Duane       Huawei Technologies         Comment Type T       Comment Status D         The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       Main this context as adjacent channels         SuggestedRemedy       Remove the parenthetical.       The samples at the statue of this N-point IDFT are and appended".         Proposed Response       Response Status W       Proposed Response	Proposed Response	Respor	nse Status W			Comment Ty	/pe T	Com	ment Status D		
C/ 101       SC 101.4.3.1       P 125       L 43       # 2646         Remein, Duane       Huawei Technologies       Change to read:         Comment Type       T       Comment Status       D         The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       SuggestedRemedu"       Replace two instances of Tsd with DS_Nrp & US_Nrp (Table 101-13 & Table 101-resp).         SuggestedRemedu       Remove the parenthetical.       Response Xatus       W       Proposed Response       Proposed Response       Response Status       W	PROPOSED AC	CEPT.				This sta point IDI	tement sho FT are copi	uld refer to a ed and appe	a system variable "Th ended". Also need	e NRP samples to distinguish D	at the start of this N- S from US.
Remein, Duane       Huawei Technologies       Change to read:         Comment Type       T       Comment Status       D         The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       D       Replace two instances of Tsd with DS_Nrp & US_Nrp (Table 101–13 & Table 101-resp.).         SuggestedRemedy Remove the parenthetical.       Response Kesponse       Response Status       W       Proposed Response       Response Status       W	C/ 101 SC 10	1.4.3.1	P <b>125</b>	L <b>43</b>	# 2646	SuggestedR	emedy				
Comment Type       T       Comment Status       D         The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       Replace two instances of Tsd with DS_Nrp & US_Nrp (Table 101–13 & Table 101-resp).         SuggestedRemedy Remove the parenthetical.       Response Status       W         Proposed Response       Response Status       W	Remein, Duane		Huawei Techn	ologies		Change	to read:	Iro roorooo	nto the complex of the	a atom of this N	naint IDFT are conied
The parenthetical "(excluded subcarrier)" is confusing in this context as adjacent channels will likely have overlapping excluded carriers.       Replace two instances of Tsd with DS_Nrp & US_Nrp (Table 101–13 & Table 101-resp).         SuggestedRemedy Remove the parenthetical.       Response Status W       Response Status W         Proposed Response       Response Status W       Proposed Response	Comment Type T	- Comm	ent Status D			and app	ended"	vrp represe	nts the samples at the	e start of this N-	point IDFT are copied
SuggestedRemedy       Replace NRP with DS_Nrp in this section (about 32 instances) and with US_Nrp in 101.4.4.13. Note this removes painful subscripting. (see mdio mapping table in remein_3bn_14_1114.pdf)         Proposed Response       Response Status       W         Proposed Response       Response Status       W	The parenthetica will likely have or	al "(excluded sub verlapping exclu	ocarrier)" is confusing ded carriers.	g in this contex	as adjacent channels	Replace resp).	two instan	ces of Tsd v	with DS_Nrp & US_Nr	p (Table 101–13	3 & Table 101–21
Remove the parenthetical.       remove the parenthetical.       (see mdio mapping table in remein_3bn_14_1114.pdf)         Proposed Response       Response Status       W	SuggestedRemedy					Replace	NRP with I	DS_Nrp in the strength of the	his section (about 32	instances) and v	with US_Nrp in section
Proposed Response Response Status W Proposed Response Response Status W	Remove the pare	enthetical.				(see md	io mapping	table in rem	nein_3bn_14_1114.pd	df)	
	Proposed Response	Respor	nse Status W			Proposed R	esponse	Respo	onse Status W		
PROPOSED ACCEPT. PROPOSED ACCEPT.	PROPOSED AC	CEPT.				PROPO	SED ACCE	PT.			

C/ 101 SC 101.4.3.10

IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

Cl         101         SC         101.4.3.2         P 126           Remein, Duane         Huawei Techno	L <b>31</b> logies	# 2613	C/         101         SC         101.4.3.5.3         P 131         L 14         # 2600           Remein, Duane         Huawei Technologies
Comment Type <b>T</b> Comment Status <b>D</b> 1Change (4.8828125 ns) to SuggestedRemedy			Comment Type <b>T</b> Comment Status <b>D</b> Figure 101–16—"Placement of predefined continuous pilots around the PHY Link" implies PHY Link is 6 MHz wide ("PHY Link band (6 MHz))" when in fact it is only 400 kHz. The 6 MHz band extends beyond the upper and lower continuous pilots.
(1/204.8MHZ) Proposed Response Response Status W PROPOSED ACCEPT.			SuggestedRemedy Combine with figure 102-9, place in Cl 102 and ref from here. (see remein_3bn_12_1114.pdf for new figure)
C/         101         SC         101.4.3.4         P 128           Remein, Duane         Huawei Techno	L <b>43</b> logies	# 2672	Proposed Response Response Status W PROPOSED ACCEPT.
Comment Type <b>T</b> Comment Status <b>D</b> Text and figure for DS framing			C/         101         SC         101.4.3.5.4         P 133         L 54         # 2669           Laubach, Mark         Broadcom Corporation         Broadcom Corporation
SuggestedRemedy see remein_3bn_16_1114.pdf			Comment Type TR Comment Status D Step 7 is normative.
Proposed Response Response Status W PROPOSED ACCEPT.			SuggestedRemedy Remove the word "Informational"
C/         101         SC         101.4.3.5.1         P 133           Leo, Montreuil         Broadcom	L <b>4</b>	# 2680	Proposed Response Response Status W PROPOSED ACCEPT.
Comment Type <b>TR</b> Comment Status <b>D</b> Step 3 and 4 are infomational			C/         101         SC         101.4.3.9         P         144         L         31         #         2647           Remein, Duane         Huawei Technologies
SuggestedRemedy Remove step 3 and 4 Proposed Response Response Status W PROPOSED ACCEPT. Editor changed from ER to TR			Comment Type       T       Comment Status       D         This statement should refer to a system variable not the whole register: "Once the CNU detects the downstream PHY Link and receives the downstream PHY Link control register (see 45.2.1.113), the CNU knows the location of k = 0.         SuggestedRemedy       Change to read:       "Once the CNU detects the downstream PHY Link and receives the DS_FreqCh1 variable (see Table ref), the CNU knows the location of k = 0."" Add DS_FreqCh1 through DS_FreqCh5 to mdio mapping table (see remein_3bn_14_1114.pdf)."         Proposed Response       Response Status       W

C/ 101 SC 101.4.3.9 Page 8 of 31 11/4/2014 6:43:04 PM

C/ 101 Kliger, Avi	SC 101.4.4.12.1	P <b>158</b> Broadcom	L 15	# 2718	C/ <b>101</b> Laubach,	SC <b>101.4.4.</b> : Mark	3.2	P <b>150</b> Broadcom Co	L <b>45</b> rporation	# 2671		
Comment T PDR sl Suggested change	Type <b>T</b> Com hould be transmitted un- Remedy e sentence to:	ment Status <b>D</b> equalized		<b>D</b>	Comment "OFDI transm Suggested Sugge	Type <b>TR</b> MA transmission nission energy (t dRemedy est replacing: "He	Comment S n may be interrup the transmission owever, an OFD	tatus <b>D</b> oted" can be ir of an OFDMA MA transmiss	terpret as intern symbol).	rupting the RF		
Proposed F	s pre-equalize all transm " Response Respo DSED ACCEPT.	onse Status W	DDE and PHY D	scovery Response	Proposed Response Response Status W PROPOSED ACCEPT.							
C/ 101	C/ 101 SC 101.4.4.3 P 149 L 46 # 2654			# 2654	C/ 101 Remein C	SC 101.4.4.3	3.2	P <b>150</b> Huawei Techr	L 41	# 2615		
Remein, Di Comment T This pa	uane <i>Type</i> <b>T</b> Com aragraph can be better a	Huawei Techn ment Status D ligned with agreed up	ologies on terms and va	ariable names.	Comment In 101 101.4	<i>Type</i> <b>T</b> .4.4.3.2 we defir .3.5.4. We shoul	<i>Comment</i> S ne a bands edge ld be consistent.	tatus <b>D</b> e. I believe this	is the same as	spectral edge used in		
Comment Type       T       Comment Status       D         This paragraph can be better aligned with agreed upon terms and variable names.         SuggestedRemedy         Change From:         "The upstream OFDMA frame shall be composed of a Probe opportunity followed by 256         OFDMA frames. Each Probe opportunity may be five or six OFDMA symbols in duration.         An OFDMA frame is one Resource Block column (i.e., one column of Resource Blocks over the entire upstream spectrum). Each Resource Block is composed of one subcarrier and has a duration, which is identical to the time interleaver period, of either 8 or 16					Suggested Chang Proposed PROF On se (used	dRemedy ge band edge to Response POSED ACCEPT cond thought it r 14 x).	spectral edge. F <i>Response Si</i> T IN PRINCIPLE might be better t	Remove editor tatus W o change spec	s note pg 133 lr ctral edge (usec	ו 40 J 3x) to band edge		
symbol registe The su To: "The u OFDM, determ one co is com period Resou in Figu	Is. See US time interleaver r 45.2.1.110.2. Changing perframe structure is illup postream OFDMA frame s A frames. Each Probe P ined by the PrbDur varia lumn of Resource Blocks posed of one subcarrier as set using the US_Tm rce Block duration result re 101–25."	ving parameter in the g the Resource Block strated in Figure 101- shall be composed of eriod may be five or s ble. An OFDMA fram s over the entire upst and has a duration, w Intrlv variable, of eith s in a network restart.	10GPASS-XR L duration results -25." a Probe Period six OFDMA sym e is one Resour ream spectrum) hich is identical er 8 or 16 symb The superfram	JS OFDM control in a network restart. followed by 256 bols in duration, as ree Block column (i.e., . Each Resource Block to the time interleaver ols. Changing the e structure is illustrated	C/ 101 Kliger, Avi Comment Table amou 1,2,4, Suggested Chang Proposed	SC 101.4.4. Type T allows any repeant of flexibility is 8 (2 bits) and co dRemedy ge table 101-16 a Response	7 Comment S at value between unneccessary la rrespondingly st and correspondi <i>Response Si</i>	P 152 Broadcom tatus D n 0 to 31 and r arge. I porpose art values betw ng text accord tatus W	L 35 by start value be ad to leimit allow veen 0 and 7 (3 ingly	# 2717 etween 0 to 63. This ved repeat values to: bits).		
Proposed F PROP	Response Respo DSED ACCEPT.	onse Status W			PROF Goinf Iow nu 4 bits.	POSED ACCEPT from 5 to 2 or 3 umbers for repea	T IN PRINCIPLE control bits seer at create excessi	ns a bit to con ve overhead.	straining. Also o Change both sta	only allowing relatively art and repeat fields to		

C/ 101 SC 101.4.4.7 Page 9 of 31 11/4/2014 6:43:04 PM

# IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

C/ 102	SC 102.1.1	P 168	L 10	# 2623	C/ 102	SC 10	)2.1.3	P 170	L <b>33</b>	# 2678	
Remein, D	Duane	Huawei Techno	ologies		Leo, Montr	euil		Broadcom			
Comment In Fig be bet	<i>Type</i> <b>T</b> ure 102-2 the ord tter if they were th	Comment Status <b>D</b> er of fields in the EPFH is not he same	the same as i	n the DS EPFH. It would	Comment In figur	<i>Type</i> re 102-5,	<b>ER</b> Byte 1 ι	Comment Status D ise upper case A			
Suggestee	dRemedy				A15 to	A8 shou	ld be lov	ver case a15 to a8.			
Swap	RT/SA(16b) and	RF_ID so they are in the same	e order as in tl	ne DS message.	Proposed	Resnonse	<u>م</u>	Pesnonse Status W			
Proposed PROF	Response POSED ACCEPT.	Response Status W			PROP	OSED A	CCEPT.				
C/ 102	SC 102.1.2	<i>P</i> 169	L <b>45</b>	# 2695	C/ <b>102</b> Kliger, Avi	SC 10	)2.1.3	P <b>170</b> Broadcom	L <b>34</b>	# 2687	
Comment "Symb messa	<i>Type</i> <b>TR</b> bol duplication" bl age. It is not requ	Comment Status D ock in fig 102-4 is only reuiqre ired in the upstream PHY link.	d for the PHY	Fig 102-3/4 Discovery Response	Comment Figure Suggested change	Type 102-5 A1 Remedy e "A" to "a	<b>ER</b> 15 to A8 a' where	Comment Status <b>D</b> are capitalized while a7 to a0 required	0 are not	Fig 102-5	
replac	ce "symbol duplica	ation" with "symbol mapping".			Proposed Response Response Status W						
Proposed	Response	Response Status W			PROPOSED ACCEPT.						
PROF Use S See c	POSED ACCEPT Symbol Mapper mt 2624	IN PRINCIPLE.			<i>Cl</i> <b>102</b> Kliger, Avi	SC 10	)2.1.3	P <b>170</b> Broadcom	L <b>34</b>	# 2688	
<i>Cl</i> <b>102</b> Remein, D	SC <b>102.1.2</b> Duane	P <b>169</b> Huawei Techno	L <b>6</b> blogies	# 2624	Comment output and co	<i>Type</i> starts wit nfusing	<b>TR</b> th a7 goi	Comment Status <b>D</b> ng down to a0, this is differen	nt than shown i	n the encoder diagram	
Comment	Туре Т	Comment Status D		Fig 102-3/4	Suggested	Remedy					
Figure Pream	e 102-3 & 4 chanç nble block.	ge red text to black. Align with	Figure 100-2/3	3. Add TxPre signal to	change Say ch	e the figu ange the	re so tha a"s to	at a0 is the MSB and a7 to LS "b"s	SB, or use diffe	rent letter in this table.	
<b>•</b> •	10 1				Proposed I	Response	е	Response Status W			
Suggester	dRemedy	ein 3hn 19 1114 ndf			PROP	OSED A	CCEPT	N PRINCIPLE.			
Dropood	Boopopoo				Bit numbeirng (lsb to msb) is consistent with the rest of 802.3. Change						
PROF see re Also s	POSED ACCEPT emein_3bn_19b_2 see cmt 2694 & 20	IN PRINCIPLE. 1114.pdf 695									

C/ 102 SC 102.1.3 Page 10 of 31 11/4/2014 6:43:04 PM

IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

Cl <b>102</b> Kliger, Avi	SC 102.1.3	P 170 Broadcom	L <b>4</b>	# 2696	C/ <b>102</b> Kliger, Avi	SC	102.1.6	P <b>175</b> Broadcom	L <b>7</b>	# 2697
Commont <sup>-</sup>		Commont Status D			Commont <sup>-</sup>	Tuno	тр	Commont Status D		
PHY D	iscoverv Respons	e and Fine Ranging moved to	the probe perio	d. Do we still want to	The fac	rype ctor 1/s	art(10) is	nly correct for QAM-16		
make i	t a part of the up	stream PHY Link signaling?	the probe perio		Currented		411(10)13			
Suggested	Remedy				Suggested	Remea	y tablo of fr	actors instand of 1/cart(10)		
Remov Rangir	e the wording: "i g Response" in l	ncluding PHY Discovery Resp line 4	oonse and Fine		Proposed I	Respon	se	Response Status W		
Proposed I	Response	Response Status W			PROP	OSED	ACCEPT	IN PRINCIPLE.		
PROP	, DSED ACCEPT.				Change "1/sorte	e: (10)"				
					to:	(10)				
C/ 102	SC 102.1.3	P 170	L 9	# 2686	"the ap	propria	ite factor i	n Table 101–22"		
Kliger, Avi		Broadcom			C/ 102	SC	102.1.7	P 175	L 11	# 2698
Comment	Type ER	Comment Status D			Kliger, Avi			Broadcom		
Also pr	obes are PHY to	PHY signaling in the upstrea	m PHY Link		Comment	Tvpe	TR	Comment Status D		Svm Dup
Suggested	Remedy				"This d	luplicat	ion is acc	omplished by duplicating the	data (including	FEC parity) in the
add "ai	nd wideband pro	bes" to the end of text in line 9	).		upstrea	am data	a path for	these signals."		
Proposed I	Response	Response Status W			I his is done o	not aco n th eti	curate as me doma	cyclic prefix and cyclic suffix a	are also added	and the duplication is
PROP	OSED REJECT.				Suggested	IRomoo	hy	in eampiee.		
If we re	emove PHY Disc	overy Response (see Cmt 26) keep Probing as a PHY Link	96) as a PHY Lii signaling type	nk signaling type it	Chang	e the w	y ording of	the sentence as follows:		
					This du	uplicatio	on is acco	mplished by duplicating the ti	me domain sa	mples at the output of
C/ 102	SC 102.1.4.2.	3 <i>P</i> 173	L <b>28</b>	# 2689	the iFF	T in the	e upstrear	m data path for these signals,	and adding cy	clic prefix and cyclic
Kliger, Avi		Broadcom			Bropood J					
Comment	Type ER	Comment Status D		LDPC (362,272)	Proposed r	Respon				
The LE the fine	PC (362,272) co e ranging signal,	ode is not required. It has been however fine ranging dows no	n proposed to er it carry data any	ncode data carried by more	See cn	nt 2683	ACCEPT	IN PRINCIPLE.		
Suggested	Remedy				C/ 102	SC	102.1.7	P 175	L 16	# 2535
Remov	e section 102.1.	4.2.3			Leo, Montre	euil		Broadcom		
Proposed I	Response	Response Status W			Comment	Туре	ER	Comment Status D		
PROP	OSED ACCEPT.				We ne	ed a fig	ure to illu	strate the symbol duplication	process	
					Suggested	Remea	'y			
					Attach	ment h	as the figu	ıre.		
					Proposed I	Respon	se	Response Status W		
					PROP	OSED	ACCEPT	IN PRINCIPLE.		
					Attach	ment is	titled Syr	nbol duplication figure1 (docx	) or OFDMA_Ir	nitial_ranging (visio)

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: Clause, Subclause, page, line

C/ 102 SC 102.1.7 Page 11 of 31 11/4/2014 6:43:04 PM

# IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

C/ 102 SC 102.1.9 P175 L 38 # 2651	C/ 102 SC 102.2 P 177 L 1 # 2611
Remein, Duane Huawei Technologies	Remein, Duane Huawei Technologies
Comment Type T Comment Status D	Comment Type T Comment Status D
Updates to Table 102–3—10GPASS-XR MDIO/PHY Link variable mapping SuggestedRemedy	We should add a maximum allowed turn around time on the DS PHY Link so that we can ensure messages with time sensitive information, such as PHY Discovery Instructions, arrive with sufficient time to be decoded and acted upon.
See remein_3bn_13_1114.pdf	SuggestedRemedy
Proposed Response Response Status W	Add new section 102.2.5 Downstream PHY Link response time. The CNU shall decode
PROPOSED ACCEPT.	and be capable of acting on instructions included in a downstream PHY Link frame, such as PHY Discovery instructions, within TBD us.
C/ 102     SC 102.1.9     P 176     L 26     # 2652       Remein, Duane     Huawei Technologies       Comment Type     T     Comment Status     D       Allowed CNU_ID or Next CNU_ID?     SuggestedRemedy	Included the following in Variable Def. section for DS PHY Link. PhyLnkRspTm TYPE: 16-bit Integer The value of this variable defines the minimum time, in OFDM clocks, after receiving the last bit of the FEC, needed by the CNU to decode and prepare the response to a PHY Link Instruction.
Go with Allowed CNU ID in CI 45 and AllwdCNU_ID in CI 102 (change in 4 places including	Proposed Response Response Status W
Proposed Response Response Status W PROPOSED ACCEPT.	PROPOSED ACCEPT. If possible TF should set a timeframe and replace the "TBD" 40 us (2 symbols) is suggested.
C/ 102         SC 102.2         P 177         L 1         # 2617           Remein, Duane         Huawei Technologies         Huawei Technologies         Huawei Technologies	C/ 102         SC 102.2         P 177         L 1         # 2609           Remein, Duane         Huawei Technologies
Comment Type <b>T</b> Comment Status <b>D</b> Need state diagram and related definitions for CLT PHY Link transmit process.	Comment Type <b>T</b> Comment Status <b>D</b> Where is DS Timestamp generation described? Need text.
SuggestedRemedy See Figure 102-1 and related text in remein 3bn 10 1114.	SuggestedRemedy See 102.2.5.2 in remein_3bn_10_1114.
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.	Proposed Response Response Status W PROPOSED ACCEPT.
See Figure 102-1 and related text in remein_3bn_10b_1114.	C/         102         SC         102.2.1.1         P 177         L 10         # 2690           Kliger, Avi         Broadcom
	Comment Type ER Comment Status D
	this paragraph uses the term pilot tones, while elsewhere in the text the term contnuous pilots is used
	SuggestedRemedy replace "pilot tones" with "continuous pilots" in subclause 10.2.1.1
	Proposed Response Response Status W PROPOSED ACCEPT.
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G	/general C/ 102 Page 12 of 31

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SC 102.2.1.1 11/4/2014 6:43:04 PM SORT ORDER: Clause, Subclause, page, line

IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

<i>CI</i> <b>102</b> Remein, D	SC <b>102.2.1.2</b> Duane	P <b>177</b> Huawei Techr	L <b>20</b> nologies	# 2597	C/ <b>102</b> Kliger, Avi	SC 102.2.	3.1.1	P 181 Broadcom	L <b>34</b>	# 2691	
Comment Assun remeir Suggested	<i>Type</i> <b>T</b> ning we create th n_3bn_11_114.pr dRemedy	Comment Status <b>D</b> e suggested new table listing df) then we shouldn't restate a	modulation for a requirement h	<i>Mod Table 100-x</i> amts (see ere.	Comment <sup>®</sup> "Each "B"; on .It is no	Type <b>TR</b> CNU contains Iy one of which of clear that th	Comments two profiles in the is active at a the profiles in each	nt Status <b>D</b> a each direction, c any given time" ach direction are i	opy "A" and cop dentical to all C	ру NUs.	
Change: "The DS PHY Link shall use a 16-QAM constellation for all information subcarrier s." To: "The DS PHY Link uses a 16-QAM constellation for all information subcarriers as specified in Table 100-REF. In 102.3.1.2 add The US PHY Link may use any of the modulation formats listed in Table 100-REF."					SuggestedRemedy Add text that clrarifies the above "Each CNU contains two profiles in each direction, copy "A" and copy "B"; only one of which is active at any given time. The active profile in each direction is identical to all CNUs" Proposed Response Response Status W						
Proposed PROP Cl 102 Romain D	Response POSED ACCEPT SC 102.2.1.2	Response Status W	L 43	# 2629	PROPOSED ACCEPT IN PRINCIPLE. Editor changed comment type from ER to TR Add " The CLT shall ensure that the inactive profile in all CNUs is identical prior to makin it the active profile."						
Comment Figure subca See re Cl 100 SC 10 pg 13 <sup>o</sup> In 14	<i>Type</i> <b>T</b> 102–9—"DS PH rriers but this has elate comment ), 11.4.3.5.3 1	Comment Status D IY Link spectrum placement" s been changed to 22 MHz.	show minimum	of 24 MHz of active	Always Cl 102 Kliger, Avi Comment Respo Suggested	SC <b>102.2.</b> <i>Type</i> <b>TR</b> nse Type (RT <i>Remedy</i> a bolder at this	f the above rec 3.1.1 <i>Commer</i> ) field may nee	P <b>182</b> Broadcom Int Status <b>D</b> ad to change once	L 33	# 2699	
Suggested s/b 22 remeir Proposed PROP	dRemedy MHz not 24, cor n_3bn_12_1114. Response POSED ACCEPT	nbine with Fig 101-16 and ref pdf. <i>Response Status</i> <b>W</b>	from CI 101. S	ee	Proposed I PROP No sug	Response OSED REJEC ggested chang	Response T. ge.	e Status W			

C/ 102 SC 102.2.3.1.1

IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

C/ 102 SC 102.2.3.1.1 P 182	L 36	# 2632	C/ 102	SC 102.3.1.	1 <i>P</i> 1	85	L <b>27</b>	# 2701
Remein, Duane Huawei Ter	chnologies		Kilger, Avi	T. T.D.	Broad	b		
In this statement about Response Frame we still CNUs that have already completed PHY Discove Link. "When the Response Type field indicates F Response Frame should be set to zero and is igr types have fixed starting points."	need to specify RF ry will still supply a ine Ranging / PHY nored on reception	F for Fine Ranging as and ACK via the PHY / Discovery the as these signaling	"The up same ( There i window	ype TR ostream PHY L DFDM Symbol s a single OFD v size Remedy	Link shall use the size and cyclic prefix DM symbol size in the	D duration as t upstream. U	he upstream MA S PHY link must	AC data channel" t use the same
SuggestedRemedy			Change	the sentence	to:			
Strike the sentence.			The up	stream PHY Li	nk shall use the cyclic ata channel	prefix durat	ion and the sam	e window size as
Proposed Response Response Status W PROPOSED ACCEPT.			Proposed F	Response DSED ACCEP	Response Status T.	w		
CI 102         SC 102.2.3.1.1         P 182           Kliger, Avi         Broadcom	L <b>40</b>	# 2700	<i>Cl</i> <b>102</b> Remein. Di	SC 102.3.3	P 1 Huay	<b>86</b> /ei Technolo	L <b>50</b> gies	# 2655
Comment Type <b>TR</b> Comment Status <b>D</b> "if the DA does not match the assigned address of discarded and no response is made" The TMB and probe controls must not be ignored SuggestedRemedy	or the broadcast ac	ddress then the frame is	Comment T Why is "For Fin punctu	<i>Type</i> <b>T</b> this statement ne Ranging dat red LDPC code	Comment Status here? There is not da ta transfers the upstree described in 102.1.4	D ata in a FR re am PHY Lin .2.3"	esponse. k shall use a (36	52,272) binary
Correc the sentence as follows" "if the DA does not match the assigned address of in the frame are discarded and no response is m	or the broadcast ac ade"	ddress then the EMBs	Suggested Remov LDPC	Remedy e the statemer code described	nt and all text and figu I in 102.1.4.2.3	res regarding	g the (362,272) t	pinary punctured
Proposed Response Response Status W PROPOSED ACCEPT. Cl 102 SC 102.3 P185	L 19	# 2618	Proposed F PROPO Per con remove	Response DSED ACCEP mment, verify e FEC descripti	Response Status T IN PRINCIPLE. each described FEC in ion for any codes not	W 1 Cl 101 & 10 used.	02 is used. Add I	Editors note to
Remein, Duane Huawei Te	chnologies		C/ 102	SC 102.3.3	P 1	86	L 50	# 2702
Comment Type T Comment Status D			Kliger, Avi		Broad	dcom		
Need state diagram and related definitions for CN SuggestedRemedy	NU PHY Link trans	mit process.	Comment T Fine R	Type <b>TR</b> anging doesnt	Comment Status carry data, this FEC is	D s not necess	ary	
See Figure 102-2 and related text in remein_3bn	_10_1114.		Sugaested	Remedy				
Proposed Response Response Status W			Remov	e this subclaus	se			
PROPOSED ACCEPT IN PRINCIPLE. See Figure 102-2 and related text in remein_3bn_	_10b_1114.		Proposed F PROPO Remov For Fin punctu describ	Response DSED ACCEP e the sentence e Ranging data red LDPC code ed in 102.1.4.2	Response Status T IN PRINCIPLE. a transfers the upstreated 2.3	<b>W</b> am PHY Link	s shall use a (362	2,272) binary
TYPE: TR/technical required ER/editorial required G COMMENT STATUS: D/dispatched A/accepted R/re SORT ORDER: Clause, Subclause, page, line	GR/general required ejected RESPOI	d T/technical E/editorial G/ NSE STATUS: O/open W/w	'general rritten C/closed	U/unsatisfied	Z/withdrawn	C/ 102 SC 102.3.	3	Page 14 of 31 11/4/2014 6:43:04

C/ 102 SC 102.3.4 Kliger, Avi	P 187 Broadcom	L 1	# 2703	C/         102         SC         102.4.1.2         P         188         L         46         #         2692           Kliger, Avi         Broadcom         Broadcom <td< td=""></td<>
Comment Type <b>TR</b> "The DS_PHYLinkSrch declaring a search failu SuggestedRemedy Indicate in the text	Comment Status <b>D</b> StepCnt is set to indicate the ure. Is this per frequency or se	e number of sea earches over all	rches to make prior to frequencies?	Comment Type ER Comment Status D "to being a PHY Link search" - should be "to begin a new test" SuggestedRemedy change being to begin Proposed Response Response Status W
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Changed fm pg 187 ln 1 to pg 188 ln 43 Per 45.2.1.114.5 DS PHY Link Search Count (1.1914.12:0) Register bits 1.1914 12 through 1.1914 0. specify the integer number of search steps				PROPOSED ACCEPT.           Cl 102         SC 102.4.1.3         P 189         L 11         # 2625           Remein, Duane         Huawei Technologies
through which to searc for a PHY Link Change "searches" to	h "search steps"			Comment Type <b>T</b> Comment Status <b>D</b> Perhaps we should not leave this specifically up to the implementor. "The periodicity of these windows is unspecified and left up to the implementor."
C/ <b>102</b> SC <b>102.4.1.1</b> Remein, Duane	P <b>188</b> Huawei Techr	L <b>9</b> nologies	# 2627	SuggestedRemedy Change the sentence to read: "The periodicity of these windows is unspecified."
Comment Type <b>T</b> In Figure 102-15 we sh domain. We should als	Comment Status <b>D</b> nould make it clear that the RI so update it to current bring-u	ND Delay is in b p process: 1) Cl	oth time and frequency _T Opens PHY	Proposed Response Response Status W PROPOSED ACCEPT.
Discovery 2) CNU issues PHY Di 3) CLT assigns CNU_I 4) CLT assigns Fine Ra 5) CNU sends Fine Ra 6) CLT updates Timing 7) Iterate 4-6 as neede 8) CLT schedules CNL 9) CNU sends Probe re 10) CLT updates Timin 11) Iterate 8-10 as nee 12) CLT sets CNU to L 13) CNU ACK's Link-up MAC data paths)	scovery response D, sets Timing Offset and Am anging Slot to new CNU nging Response g Offset and/or Amplitude Offset J Probe esponse ng Offset and/or Amplitude Of ded ink-up state p in PHY Link (note this is the	nplitude Offset v set via PHY Inst fset via PHY Ins fiset CNU trans	ia PHY Instruction ruction struction	C/ 102       SC 102.4.1.4       P 189       L 50       # 2620         Remein, Duane       Huawei Technologies       Huawei Technologies       # 2620         Comment Type       T       Comment Status       D       D         Need a convention for numbering and referencing PHY Discovery opportunities as the may be upto 16 per Probe Period. This ties in wth the back-off mechanism.       SuggestedRemedy         SuggestedRemedy       See figure 1012-16 in remein_3bn_19_1114.pdf.       Proposed Response         PROPOSED ACCEPT IN PRINCIPLE.       Create ad text ref to the new figure also.       W
SuggestedRemedy See remein_3bn_19_1	114.pdf			

Proposed Response	Response Status	W	
PROPOSED ACCEPT.			

C/ 102 SC 102.4.1.4

C/ 102         SC 102.4.1.4         P 190         L 1         # 2628           Remein, Duane         Huawei Technologies         Huawei Technologies	C/         102         SC         102.4.1.4         P         190         L         50         #         2619           Remein, Duane         Huawei Technologies         Huawei Technologies					
Comment Type         T         Comment Status         D           Clarification of highlighted text on back-off algorithm for PHY Discovery response.	Comment Type         T         Comment Status         D           Need state diagram and related definitions for CNU Discovery Response transmit process.					
SuggestedRemedy Change from: "In order to reduce transmission overlaps, a contention algorithm is used by all off-line CNUs. Measures are taken to reduce the probability for overlaps by artificially simulating a random distribution of distances from the CLT. Each CNU waits a random amount of time before transmitting the PHY Discovery Response that is shorter than the length of the	SuggestedRemedy See Figure 102-2 and related text in remein_3bn_10_1114. Proposed Response Response Status W PROPOSED ACCEPT.					
100.x.y window. Multiple valid PHY Discovery Responses that do not overlap in time may be received by the CLT during a single PHY Discovery window." To:	C/         102         SC         102.4.1.5         P         191         L         19         #         2610           Remein, Duane         Huawei Technologies         Huawei Technologies					
<ul> <li>"In order to reduce transmission overlaps, a contention algorithm is used by all off-line CNUs. Measures are taken to reduce the probability for overlaps by artificially introducing a random distribution in the Discovery response opportunity used by each CNU. Each CNU selects a random number of Discovery response opportunities it waits before transmitting the PHY Discovery Response. Multiple valid PHY Discovery Responses that do not overlap in time may be received by the CLT during a single PHY Discovery window depending on the modulated spectrum of OFDM channel 0."</li> <li>Proposed Response Response Status W PROPOSED ACCEPT.</li> </ul>	Comment Type       T       Comment Status       D         This figure reference is incorrect. "PHY Discovery Response (illustrated in Figure 102–20)." Need to add figure and reassign reference       SuggestedRemedy         Add figure per Leo Montreuil and ref. from here.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       Figure 2005       Suggested Response       Status       Suggested Response					
C/ 102       SC 102.4.1.4       P 190       L 3       # 2704         Kliger, Avi       Broadcom         Comment Type TR Comment Status D         Random backoff should be on PD window opportunities and not on time         Also, more details shold be added on transmission power of the PDR (probably in a different section but referenced here)         SuggestedRemedy         correct the sentence as follows:         "Each CNU waits a random amount of PHY Discovery window opprtunities before transmitting the PHY Discovery Response"	Cl 102       SC 102.4.1.5       P 191       L 33       # 2626         Remein, Duane       Huawei Technologies          Comment Type       T       Comment Status       D         Figure 102-16 title is incorrect       SuggestedRemedy           Change to "PHY Discovery Preamble generator."       Proposed Response       Response Status       W         PROPOSED ACCEPT.       PROPOSED ACCEPT.       PROPOSED ACCEPT.					

C/ 102 SC 102.4.1.5

### IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

**Approved Responses** 

C/ 102	SC 102.4.2	P <b>191</b>	L <b>48</b>	# 2706
Kliger, Avi		Broadcom		

#### Comment Type T Comment Status D

FR purpose was to provide better accuracy to measurments of power and timing offset than PDR before probe could be transmitted, under the assumptions that PDR are send in frames that also contain data, usiing a relatively small number of subcarriers and with a low transmission power to not interfere with the data, hence recievedd with low SNRs. This has been required under the assumption that PD windows should be opened over several OFDMA frames (due to an RTT in order of a mSec) and that data cannot be halted for this amount of time.

Recently we've made some substantial changes to the ranging requirements for EPoC: 1.RTT dynamic range is now less than one OFMD symbol

2.PDR signal is not mixed with data any more. Whole symbol can be dedicated to one or more PDRs. There is no leakage from PDR to data subcarriers

3.PDR can be transmitted in a high SNR with more BW available (could use same number of subcarriers used for Fine Ranging).

4. There is no timing ambiguity of a symbol after the PDR reception as RTT is always less than a symbol (<20 uSec)

5. Fine Ranging does not carry any data

With this changes to PDR there is no more a reason to use FR signal. Fine and periodic ranging can be done using the probes.

#### SuggestedRemedy

Remove this section. Remove all other references to fine ranging in the text

Proposed Response Response Status W

PROPOSED ACCEPT.

ON SECOND THOUGHT: REWORD AS THERE ARE NEEDED REQUIREMENTS IN THIS SECTION SUCH AS:

Before declaring a CNU is in the link-up state the CLT shall ensure that a CNU joining the EPoC network is properly aligned to the US OFDMA timing and is cognizant of all necessary provisioning parameters needed to properly operate in the OFDMA network without adverse impact to the EPoC network or other services operating in RF spectrum unused by the EPoC network. A list of required parameters is given in Table 102-12. When the CNU receives the PhyTimingOffset variable it shall add the new value of PhyTimingOffset to the RangingOffset.

Here is a list of potentially impacted areas pg line 37 46 150 5 151 36 1704&9 175 3. 12. 15. & 23

182	34, 35, & 36
186	50
187	25
191	48 - pg 192 ln 19

C/ 102	SC 102.4.2	P 192	L 18	# 2603
Remein, I	Duane	Huawei Tech		
Comment	Tvpe <b>T</b>	Comment Status D		PhyTiminaOffset

Comment Type T Comment Status D

See related cmt Cl 45.2.1.122 pg 44 ln 46

EDITORS NOTE (to be removed prior to publication): need to create a mdio register for RangingOffset (signed number same size as PhyTimingOffset) which defaults to zero. This is to allow the operator to set the distance to the coax cable distribution network in the event there is an analogue optical link between the CLT and coax cable distribution network.

#### SuggestedRemedy

Don't need sign bit. See remein 3bn 15 1114.pdf, remove Ed Note.

Proposed Response Response Status W

PROPOSED ACCEPT.

C/ 102	SC 102.4.3	P1	92	L <b>21</b>	# 2616
Remein, D	uane	Huaw	ei Tech	nologies	
Comment <sup>®</sup> A way	<i>Type</i> <b>T</b> is needed to sch	Comment Status nedule the Probe Peri	D iod.		
Suggested See re remein	IRemedy mein_3bn_02_1 35n_021014C	014.pdf (diff version o MP.pdf)	compare	ed to Draft 1.1 tex	t is
Proposed I PROP See re remein	Response OSED ACCEPT mein_3bn_02c_ n_3bn_02c_1014	Response Status IN PRINCIPLE. 1014.pdf (diff version 4CMP.pdf)	<b>W</b> compa	red to Draft 1.1 te	ext is
<i>Cl</i> <b>102</b> Kliger, Avi	SC 102.4.3.1	I P1 Broad	<b>92</b> Icom	L <b>29</b>	# 2693
Comment <sup>®</sup> Do we	<i>Type</i> <b>T</b> really need the	Comment Status two options?	D		
Suggested change	<i>Remedy</i> e numbet of prol	pe symbols to be alwa	ays 6		
Proposed I PROP Chang	Response OSED ACCEPT led to Cl 00 as th	<i>Response Status</i> : nis also impacts CI 45	<b>W</b>		
eral			C/ 10	)2	Page 17 of 31

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 SC 102.4.3.1 11/4/2014 6:43:04 PM SORT ORDER: Clause, Subclause, page, line

## IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

C/ 103	SC 103.1	P 201	P 201 L 24				
Hajduczen	lia, Marek	Bright Hous					
Comment "EPoC freque	<i>Type</i> <b>T</b> Uses FDD te ncy." - unnec	Comment Status D echnology; downstream and up essary detail for MPCP Claus	ostream directions	are separated in			
Suggested Remo	dRemedy ve.						
Proposed PROP	Response OSED ACCE	Response Status W					
C/ 103	SC 103.1	P 201	L 33	# 2520			
Hajduczen	ia, Marek	Bright Hous	e Network				
Comment	Туре Т	Comment Status D					
"This o multip MPCP suppo it is ar	clause specifi oint network l defined in C rting current a independen	es the multipoint control proto by defining a Multipoint MAC C lause 77 and of the MAC Cont and future operations as define t Clause, whether it is extension	col (MPCP) to ope control sublayer as rol sublayer define ed in Clause 31 an n of Clause 77 or	rate a coax cable an extension of the d in Clause 31, and d annexes." - given that not does not matter.			

### SuggestedRemedy

Change to read

"This clause specifies the multipoint control protocol (MPCP) to operate a coax cable multipoint network by defining a Multipoint MAC Control sublayer as an extension of the MAC Control sublayer defined in Clause 31, and supporting current and future operations as defined in Clause 31 and annexes."

### Proposed Response Response Status W

### PROPOSED ACCEPT IN PRINCIPLE.

"This clause specifies the multipoint control protocol (MPCP) to operate a coax cable distribution network by defining a Multipoint MAC Control sublayer as an extension of the MAC Control sublayer defined in Clause 31, and supporting current and future operations as defined in Clause 31 and annexes."

C/ 103	SC 103.1	P 202	L 20	# 2521
Hajduczen	ia, Marek	Bright House	Network	
Comment CDN o of CCI	<i>Type</i> <b>T</b> or CCDN? There DN.	Comment Status <b>D</b> are just two uses of CDN in t	he document rig	ht now, versus 23 uses
Suggested	Remedy			
Chang	e two stranded	instances of CDN to CCDN.		
Proposed I	Response	Response Status W		
PROP Chang	OSED ACCEPT e to coax cable	IN PRINCIPLE.		
C/ 103	SC 103.1	P <b>202</b>	L <b>25</b>	# 2522
Hajduczen	ia, Marek	Bright House	Network	
The M device Clause	ultipoint MAC C s containing poi a 101 and Claus	ontrol functionality shall be irr nt-to-multipoint Physical Laye e 102.	plemented for se r devices define	ubscriber access d in Clause 100,
Only C	lause 100 defin	es PHY. 101 is PCS and 102	is parallel to PC	S
Suggested Chang	<i>Remedy</i> e to			
The M device	ultipoint MAC C s containing poi	ontrol functionality shall be im nt-to-multipoint Physical Laye	plemented for se or devices define	ubscriber access d in Clause 100.
Proposed I	Response	Response Status W		
PROP Cl 100 Link. E The 10	OSED REJECT defines the PM ach of these is OGPASS-XR PH	D note the PHY, Cl 101 the R a component of the PHY. IY requires all clauses.	S, PCS and PM	A and CI 102 the PHY

C/ 103 SC 103.1

C/ 103	SC 103.1.2	P 204	L <b>1</b>	# 2523	C/ 103	SC 103.2.2		P 210	L 18	# 2516
Hajduczenia	a, Marek	Bright Hous	e Network		Hajduczer	iia, Marek	Br	ight House N	etwork	
Comment 7	Гуре Т	Comment Status D			Comment	Type ER	Comment Stat	tus <b>D</b>		
Several issues with Figure 103-2: 1) PMA clause is marked as TBD - I believe PMA is already defined in Clause 100 to some degree 2) no Clause 102 in the drawing? 3) COAX medium is CCDN defined elsewhere					Is there any legitimate reason why all existing live cross-references from 802.3-2012 text were removed and replaced with green text? It does not hurt to keep them active, as long as they point to a correct location in 802.3. Only new cross references to subclauses outside of the draft need to be places as text and marked in green for insertion of cross references later on.					
Suggestedl	Remedy				Suggested	lRemedy				
Addres	s individual issue	S			Recov	er all live cross	references taken f	rom 802.3-20	12 text and r	mark into green only
Proposed F	Response	Response Status W			Cross	references adde	d new in this docu	iment.		
PROPOSED ACCEPT IN PRINCIPLE. Add link & CL 100 in PMA. As this figure show the "Relationship of Multipoint MAC Control and the OSI protocol stack					Proposed PROP At this	OSED REJECT	external reference	es and need to	o be in forest	t green per WG template.
In revie "PASSI	wing CL 64 & 77 IVE OPTICAL ME	neither use ODN, which i EDIUM" and CI 77 uses "F	s the complement Fiber" so I conclude	of CCDN. Cl 64 uses e that COAX is	<i>Cl</i> <b>103</b> Hajduczer	SC <b>103.2.2</b> iia, Marek	Br	P <b>211</b> ight House N	L <b>25</b> etwork	# 2524
					Comment	Туре Т	Comment Star	tus <b>D</b>		
C/ <b>103</b> Hajduczenia	SC <b>103.2.1</b> a, Marek	P <b>207</b> Bright Hous	L <b>4</b> se Network	# 2515	Editor "trans	ial Note:In Figure mitAllowed", the	e 102-8 the baselin editor will add a co	ne material di omment to fo	d not include rmalize this o	e the "(n)" for change.
Comment 1	vpe FR	Comment Status D			Suggested	Remedy				
More m	nessed up format Clause 103.	ting. Seems that all specia	al formatting from	77.2.1 was lost when	Add th Remo	ne missing "(n)" a	after "transmitAllov lines 25-26.	wed" signal in	Figure 103-8	8.
Suggested	Remedy				Proposed	Response	Response Stat	us W		
Copy C	lause 77 from 80	02.3-2012 (even even bett	er, from 802.3bx) a	and apply any	PROF	OSED ACCEPT	г.			
necess There a comme	ary changes, *wi are way too many ent on them sepa	thout* making changes int r formatting changes in Cl rately.	to formatting of ale ause 103 relative t	rady existing text. o Clause 77 to	C/ <b>103</b> Hajduczer	SC 103.2.2.7 iia, Marek	<b>7</b> Br	P <b>221</b> ight House N	L <b>1</b> etwork	# 2529
Proposed F	Response	Response Status W			Comment	Type TR	Comment Star	tus <b>D</b>		
PROPO There a even be	DSED REJECT. are to many techr etter, from 802.3t	, nical changes in Cl 103 to px) and apply any necessa	"Copy Clause 77 f ary changes".	rom 802.3-2012 (even	Figure Claus TBD a	e 103–12 and Fig e 101. These two at this time.	gure 103–13 do no o figures, associat	t correspond ed variables,	to the curren functions, et	t state of PCS defined in c. should be marked as
					Suggestee	Remedy				
					Remo overhe and th at the	ve 103-12, 103- ead with current e model adopted last meeting.	13 and associated FEC arrangement d from Clause 77 v	variables. Th defined in Cl will present a	ne process of Lause 101 ha number of ch	calculating PHY as not been discussed, nallenges, as discussed
					Proposed	Response	Response Stat	us W		
					PROF Figure	OSED ACCEPT s will be marked	IN PRINCIPLE.	ssociated var	aiables highl	lighed.

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: Clause, Subclause, page, line

Page 19 of 31 11/4/2014 6:43:04 PM

C/ 103

SC 103.2.2.7

C/ 103 SC 103.3.2.4 P 224 L 36 # 2530	C/ 103 SC 103.3.3 P 224 L 50 # 2525				
Hajduczenia, Marek Bright House Network	Hajduczenia, Marek Bright House Network				
Comment Type TR Comment Status D	Comment Type T Comment Status D				
Delay requirements for MPCP running in EPoC has not been examined in any detail so far, and adopting them verbatim from EPON might prove challenging.	The description of the discovery process implies that CNUs are discovered by the CLT, just like in EPON. However, there is no indication that the CNU needs to be first discovered via				
SuggestedRemedy Replace all numbers in 103.3.2.4 with TBD	Control layer.				
Proposed Response Response Status W	SuggestedRemedy				
PROPOSED ACCEPT IN PRINCIPLE. 1024 will be replaced with TBD in two places.	Please insert at least a statement indicating that before the MPCP discovery is started, PHY Link discovery for the given CNU needs to be completed, along with the ponter where the process is described in detail.				
C/ 103 SC 103.3.3 P 224 L 49 # 2531	Proposed Response Response Status W				
Hajduczenia, Marek Bright House Network	PROPOSED REJECT.				
Comment Type TR Comment Status D	These two processes are independent. The MPCP Discovery process does not wait for PHY Link Discovery (true it will not find anything before PHY Link Discovery is complete				
The description of the discovery process assumes that the upstream burst structure, as	but it can be started as soon as desired).				
well as key parameters to be exchanged between the CLT and CNU par 1:1 with the	C/ 103 SC 103 3 5 P 243 / 3 # 2526				
structure (cannot locate it for now in PCS clause) or a formulated idea on what parameters	Haiduczenia, Marek Bright House Network				
need to be exchanged between the CLT and CNU to acomplish successfully discovery over CCDN.	Comment Type T Comment Status D				
SuggestedRemedy	This is not really true in EPoC, where multiple carriers are used simultanously, each				
Remove content of 103.3.3 and mark it as TBD at this time. Only when details of upstream	modulated with its own data stream.				
transmission are ironed out, bring the *updated* text back. Right now, MPCP gives impression that it is largely done, while in fact it contains a lot of material that is not in sync with PCS / PHY definitions.	A key concept pervasive in Multipoint MAC Control is the ability to arbitrate a >>>single transmitter<<< out of a plurality of CNUs. The CLT controls a CNU's transmission by the assigning of grants.				
Proposed Response Response Status W	SuggestedRemedy				
PROPOSED ACCEPT IN PRINCIPLE. Text from pg to 238 (103.3.3 & subclauses) will be highlighted.	Probably we need to change teh wording to mention multiple RF transmitters located at one CNU, or come up with some aggregate term distinct from transmitter.				
Add editors note to beginning of 103.3.3 EDITORS NOTE (to be removed prior to publication): Material on Discovery processing	Proposed Response Response Status W				
needs to be rationalized with CL 101 and 102.	PROPOSED REJECT. No acceptable wording is suggested. The author is invited to propose something suitable. I see no problem with the concept of a single transmitter operating on multiple frequencies simultaneously, this is somewhat basic to OFDM.				

C/ 103 SC 103.3.5

# IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

C/ 103         SC 103.3.5.1         P 244         L 2         # 2527           Haiduczenia, Marek         Bright House Network         Bright House Network         Bright House Network	C/ 103         SC 103.4         P 261         L 38         # 2635           Remein, Duane         Huawei Technologies         Huawei Technologies
Comment Type <b>T</b> Comment Status <b>D</b> Given the higher complexity of EPoC transmission process, including FEC encoding, is it viable to assume that the minimum processing time stays the same as in EPON: VALUE: 0x00000400 (16.284 up)	Comment Type       T       Comment Status       D       103.4         No reason for this section has been made known to the TF.       SuggestedRemedy         Remove section 103.4 and editors note
SuggestedRemedy Either change to a value that is viable for EPoC, or replace the numeric value with TDB	Proposed Response Response Status W PROPOSED ACCEPT. See cmt 2532
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Change 0x00000400 (16.384 us) to TBD Change 12 to TBD (line 9)	C/       103       SC       103.4       P       261       L       38       #       2532         Hajduczenia, Marek       Bright House Network       Bright House Network       103.4         Comment Type       TR       Comment Status       D       103.4         Substance       102.4       103.4
Cl 103 SC 103.3.6.3 P 258 L 1 # 2528 Hajduczenia, Marek Bright House Network Comment Type T Comment Status D "E" ?	SuggestedRemedy         Remove subclause 103.4 and associated editorial note in lines 34-35.         Proposed Response       Response Status         PROPOSED ACCEPT.         See comment 2635
Suggesteakerneay         Remove if not needed or insert missing text if something was intended to be here.         Proposed Response       Response Status         W         PROPOSED ACCEPT IN PRINCIPLE.         Remove.	Cl 45       SC 45.2.1       P 28       L 19       # 2417         Hajduczenia, Marek       Bright House Network       Example Comment Status D       D         There are two tables 45-3 in the draft. The existing editorial instructions are confusing.       Example Confusion       Example Confusion
Cl 103SC 103.3.6.4P 258L 48# 2517Hajduczenia, MarekBright House NetworkComment TypeERComment StatusD	Each part of the table should have its own editorial instruction to clearly indicate which rows are replaced and jave clearly marked rows being inserted or modified. SuggestedRemedy
"Flags. this is an 8 bit flag register" - "this" should be capitalized? <i>SuggestedRemedy</i> Why there are so many differences from Clause 77 in 802.3-2012? What base document was used to generate this Clause?	Proposed Response Response Status W PROPOSED REJECT. This format was suggested by the WG Secretary.
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. This will be capitalized.	

C/ **45** SC **45.2.1** 

# IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

C/         45         SC         45.2.1.107         P 33         L 52         #         2420           Haiduczenia         Marek         Bright House Network         Bright House Network	Cl 45 SC 45.2.1.107.1 P 34 L 23 Haiduczenia Marek Bright House Network	# 2421
Hajduczenia, Marek       Bright House Network         Comment Type       T       Comment Status       D         "CRC40 Errored frames are passed to the MAC layer as is" - this does not sound very correct       SuggestedRemedy         Change teh wording to "CRC40 Errored frames are passed to the MAC layer without error indication"       Also, it would be nice to point a reader to what these CRC40 is and what CRC40 Errored frames" are         Description in 45.2.1.107.1 is also in need of a reference to where the purpose of the said error indication mechanism is discussed. Right now it is handing off undefined.         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Change wording as proposed.       At the end of 45.2.1.107.1 add:       "For additional information on CRC40 see 101.3.2.3"         CI 45       SC 45.2.1.107       P 34       L 8       # 2423         Hajduczenia, Marek       Bright House Network         Comment Type       TR       Comment Status       D         "coaxial cable distribution network (default)" - what does it mean that the given value is	Hajduczenia, Marek       Bright House Network         Comment Type       T       Comment Status       D         "every 8th 64B/66B block, e.g. 1st, 9th, 17th, 25th, " - current numbers block:       block:         block 1: marked       block 2       block 3         block 3       block 4       block 5         block 6       block 7       block 8         block 9: marked       There is 8 blocks of distance between them, hence it is every 9th block         SuggestedRemedy       Fix it by indicating it is either every 8th block, or correct numbers in the         Proposed Response       Response Status       W         PROPOSED REJECT.       1 block marked       1 + 8 = 9       9 + 8 = 17         9 + 8 = 17       17 + 8 = 25       17 + 8 = 25       15 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	indicate every 9th k you're marking.
default ?         SuggestedRemedy         Explain what it means that the value is default. It seems to me that the register shoull always reflect the actual state of the PHY discovery process, and there is no condition under which it would in an undefined state, indicating the need for a default value. Same for register 1.1900.0. In 45.2.1.107.3, you create default value without any need - note that in EPON we have the same requirement for pHY to be operational, yet we donot define default values for PHY enable registers. I am not sure why we need it at all in FDD mode. It was needed in TDD long time ago for some reason. Now it seems not needed.         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Remove "(default)" in table (2 places).       In 45.2.1.107.2 include at end of section a new para:         "The default value for bit 1.1900.1 is zero."       In 45.2.1.107.3 include at end of section a new para:         "The default value for bit 1.1900.0 is zero."       Both of these bits are critical to the behaviour of the CNU on start-up and being clear on their default values can only help create a robust standard.	Cl 45       SC 45.2.1.108       P 35       L 20         Hajduczenia, Marek       Bright House Network         Comment Type       T       Comment Status       D         Unnecessary (and quite meaningless) information in table: "samples re (204.8 MHz)"       SuggestedRemedy         Remove all 4 instances of this term from tables in Clause 45. You already sample is in definition of individual bits, which is sufficient.         Proposed Response       Response Status       W         PROPOSED ACCEPT.	# 2425

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: Clause, Subclause, page, line

C/ 45 SC 45.2.1.108 Page 22 of 31 11/4/2014 6:43:04 PM

C/         45         SC         45.2.1.108.1         P 35         L 34         # 2424           Hajduczenia, Marek         Bright House Network         Bright House Network         P 35         P 35	Cl         45         SC         45.2.1.109.1         P 36         L 29         # 2429           Hajduczenia, Marek         Bright House Network         Bright House Network         2429
Comment Type TR Comment Status D Stop creating new terms when not needed: "binary encoded integer" SuggestedRemedy	Comment Type         TR         Comment Status         D           The definition of this register might be clear to the author, but it is not clear to teh reader.         Do we assume 5 separate OFDM channels in downstream, or it is intended to be one large block of frequencies.
Remove ", as a binary encoded integer," - it adds to confusion and the interpretation is already explained more than clear in the following sentence. Same in 45.2.1.108.2 and in 45.2.1.110.2 Similarly in 45.2.1.112.1 you create the term "binary integer" without any need. Remove all 4 instances of "as a binary integer" from the text, leaving just the orange of values intended.	SuggestedRemedy Clarify the description for register 1.1902. Also, insert missing description for registers 1.1903/4/5/6, even though it might be repetetive, it has to be complete. A high level drawing of what we are actually specifying here would be nice
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Replace 3 instances (pg 35 ln 34, 40, Pg 37 ln 50 ) of: "indicate the number, as a binary encoded integer, of"	Proposed Response       Response Status       W         PROPOSED ACCEPT.       It is as written; 5 separate channels (1-5).       Add crossreference to 101.4.3.11
with: "indicate the integer number of" Pg 39 In 6 replace: "the number, as a binary integer between" with: "the integer number between"	Cl       45       SC       45.2.1.110.1       P 37       L 45       # 2368         Hajduczenia, Marek       Bright House Network         Comment Type       T       Comment Status       D         We typically start description from register number: The Probe duration parameter
CI 45SC 45.2.1.108.3P 35L 47# 2426Hajduczenia, MarekBright House NetworkComment TypeTComment StatusD	(Register 1.1007.11) SuggestedRemedy Change to "Register 1.1907.11 (Probe duration) determines" Note that also register number needs fixing. It is 1007 and should be 1907
That is a new type of PMD: 10G-PASSS-XR SuggestedRemedy	Proposed Response Response Status W PROPOSED ACCEPT.
Change all "10G-PASSS-XR" to "10G-PASS-XR" (2 instances). Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Change to "10GPASS-XR"	Cl 45 SC 45.2.1.110.3 P 38 L 4 # 2370 Hajduczenia, Marek Bright House Network Comment Type T Comment Status D Incorrect PHY name: "10G-PASS_XR" SuggestedRemedy Change all "10G-PASS_XR" to "10GPASS-XR" (2 instances) There are also multiple instances of "10G-PASS" which would be really "10GPASS" Proposed Response Response Status W PROPOSED ACCEPT.

C/ **45** SC **45.2.1.110.3**  Page 23 of 31 11/4/2014 6:43:04 PM

C/ 45	SC <b>45.2.1.111.1</b>	P 38	L 28	# 2371	C/ <b>45</b>	SC 45.2.1.11	2.1	P <b>39</b>	L <b>7</b>	# 2372
Hajduczen	nia, Marek	Bright House	Network		Hajduczenia	, Marek		Bright House	e Network	
Comment "Subc: have 1 3,276, is inco	<i>Type</i> <b>TR</b> <i>Comm</i> arriers are numbered from 16 bits in total, indicating 64 750Hz, which is consistent prrect. It is 4095 and should	ent Status <b>D</b> 0 to 4095 withsubc 5355 possible units with value in line 2 be 65535	carrier 0 at the lov 5. If a unit is 50Hz 29. However, the	vest frequency" - we , we can reach number of subcarriers	Comment Ty DOCSIS indicate profile d Same co	<i>ope</i> <b>TR</b> Sism: "The Type that all subcarriescriptor (see 4 comment on 45.	Comment S e 1 Repeat para riers would be 1 45.2.7a.2)." .2.1.112.3	<i>tatus</i> <b>D</b> ameter canno ⊽ype 1 Pilots	ot be zero, wherea unless otherwise	as a value of 1 would specified via the US
Suggested	dRemedy				SuggestedR	emedy				
Chang Fill in conce Simila reasor	ge 4095 to 65535 the TBD value. Is there any rned about running out of s r issue in 45.2.1.109.1, but n.	reason for it NOT pace here, are we there is some ma	to be equal to ze ? ximum value assi	ro? We are not gned there without any	If the va The stat US profi misinter side not	lue of 0 is not a ement "all sub le descriptor " i pret. Consider e, is this inform	allowed, then he carriers would b is just confusing restating in sim nation really nee	bw about ma be Type 1 Pil g, including c pler terms, to cessary in the	king it a reserved ots unless otherw louble conditional o leave no doubts e description of th	value? ise specified via the statements is a way to what is meant. As a is register?
Proposed	Response Respon	se Status W			Proposed Re	esponse	Response Si	tatus <b>W</b>		
PROPOSED ACCEPT IN PRINCIPLE. We only have 4096 SC's in US so no change to that. Change the "TBD"s to 10 MHz and 200 to the last two sentences read: "This definition equates to a center frequency from 10 MHz to 3.27675 GHz in 50 kHz steps. The minimum value for this register is 200." This is consistent with TD#72. C/ 45 SC 45.2.1.111.1 P 38 L 29 # 2676					PROPOSED ACCEPT IN PRINCIPLE. Change: "Register bits 1.1909.10 through 1.1909.5 indicate the number, as a binary integer between 1 and 31, of subcarriers between repeating Type 1 Pilots. The Type 1 Repeat parameter cannot be zero, whereas a value of 1 would indicate that all subcarriers would be Type 1 Pilots unless otherwise specified via the US profile descriptor (see 45.2.7a.2)." to: "Register bits 1.1909.10 through 1.1909.5 indicate the number, as an integer between 0 and 21 of subcarriers between specified Type 1 Pilots.					
Leo, Monti Comment	reuil Type <b>T</b> Comm	Broadcom ent Status D			the Type patterns	e 1 repeating pi ."	ilot pattern. See	e 101.4.4.7 fc	or additional inforr	nation on Pilot
Repla	ce TBD for min frequency a	and register			Likewise "Registe	e change text o r bits 1.1910.1	of 45.2.1.112.3 t 0 through 1.19	o read: 10.5 indicate	the number, as a	n integer between 0
Suggested Replac GHz".	dRemedy ce "frequency from TBD to	3.27675 GHz" by '	' frequency from s	5 MHz to 3.27675	and 31, the Type patterns	of subcarriers l 1 repeating p ."	between repeat ilot pattern. See	ing Type 2 P 101.4.4.7 fc	ilots. Setting thes or additional inform	e bits to zero disables nation on Pilot
Repla registe	ce "i ne minimum value for er is 100".	this register is TBI	D" by "The minim	um value for this	C/ <b>45</b>	SC 45.2.1.11	3	P 39	L 39	# 2373
- The re	agister value of 100 is for 5	) KHz subcarrier o	nacing and a valu	e of 0 correspond to 0	Hajduczenia	, Marek		Bright House	e Network	
Hz.		Ni iz subcamer s	pacing and a valu	le of o correspond to o	Comment Ty	/ре Т	Comment S	tatus D		
Proposed PROP	Response Respon	se Status W			Unnece: 1 subca	ssary detail in t rrier."	the table "DS P	HY Link start	ing subcarrier from	m 0 to 4095 in steps of
T KOI					SuggestedR Change	<i>emedy</i> to "DS PHY Li	ink starting sub	carrier" - teh	rest should be inc	luded in 45.2.1.113.1
					Proposed Re	esponse	Response S	tatus <b>W</b>		

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: Clause, Subclause, page, line

C/ 45 SC 45.2.1.113 Page 24 of 31 11/4/2014 6:43:04 PM

C/ 45 Haiduczer	SC <b>45.2.1.11</b> 4	P: Brigh	39 L 53	# 2379	C/ <b>45</b> Haiducze	SC <b>45.2.1.114</b>	P <b>40</b> Bright House	L <b>4</b> Network	# 2380		
Comment	$T_{VDP}$ <b>T</b>	Comment Status			Commen	$t T y p \in \mathbf{TR}$	Comment Status D	Network			
"Thes unkno registe	e registers permit wn." - it is not so r ers.	the CNU to more ra registers in themse	apidly acquire the PHY lves, but the information	Clink when its location is on contained in these	There 1.191	e are several issues w 12.14 provides a searc	with the description of ind	ividual register	s in Table 45–78h: nave options to Start a		
Suggested Chang more	dRemedy ge to "These regis rapidly." - note tha	ters contain information to the second s	ation permitting the CN CNU from using this ir	NU to locate the PHY Link nformation when PHY Link	searc 45.2. 1.191	ch and Stop a search. 1.114.1 and 45.2.1.11 12.13 should be exten	"search complete" belor 14.2 need to be aligned a uded to 2 bits with the foll	ngs to 1.1912.1 accordingly.	3. Definition in g		
Proposed PROF	Response POSED ACCEPT.	Response Status	w		1 0 search complete 0 1 search successful 0 0 search unsuccessul Definition in 45.2.1.114.1 and 45.2.1.114.2 need to be aligned accordingly.						
					1.191 shoul	12.12:0 contains unne Id be moved to 45.2.1	ecessary detail "From 1 to .114.3 (already there, B	ט 5000 MHz in TW)	1 MHz steps", which		
						1.19131914.7:0 contains unnecessary detail "From 1 to 256 MHz in 1 MHz steps", which should be moved to 45.2.1.114.4 (already there, BTW)					
					1.19131914.7:0 has likely incorrect number. Should be 1914.7:0 (likely)						
					1.191 step"	131914.7:0 has incons	sistent name. Should be	"DS PHY Link	search		
					1.191	12.13 has inconsistent	t name. Should be "DS F	PHY Link searc	h status"		
					1.191	14.12:0 has inconsiste	ent name. Should be "DS	SPHY Link sea	rch count"		
					Apply	y the same set of char	nges to names in subcla	uses 45.2.1.11	4.xx		
					Suggeste	edRemedy					
					Chan	iges per comment					
				Proposed PRO Imple and Propo not a	POSED ACCEPT IN I ement changes propos 1.19131914.7. Also cl osed changes for 1.19 nd success/unsucces	Response Status W PRINCIPLE. sed for 1.1912.12:0 hange 1.19131914.7 to 7 912.13 will not work as w	l.1914.7 /e need to signa	al search is complete or			

C/ **45** SC **45.2.1.114** 

SORT ORDER: Clause, Subclause, page, line

### IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

C/ 45 SC 45.2.1.114.3 P 40 L 37 # 2381	C/ 45 SC 45.2.1.116 P 41 L 20 # 2361
Comment Type I Comment Status D	"The DHV Discovery presess is used to bring up new CNI to an the EDeC Copy network."
from 0 to 5000 MHz, at which to begin searching for a PHY Link.	we do not use "coax network" anymore
Since there are 13 bits, we can go all the way to 8191 MHz. Is there any reason we ne go that far?	ed to SuggestedRemedy Replace "coax network" with the proper term.
SuggestedRemedy	Proposed Response Response Status W
Either increase the resolution to 500kHz if needed, or decrease the size of register set 12 bits.	to PROPOSED ACCEPT IN PRINCIPLE. Change:
Proposed Response Response Status W	"EPoC Coax network"
PROPOSED ACCEPT IN PRINCIPLE. Change resolution to 500 kHz. Reword appropriately.	"EPoC coax cable distribution network.
C/ 45 SC 45 2 1 114 4 P 40 / 42 # 2382	Cl 45 SC 45.2.1.116 P 41 L 29 # 2636
Hajduczenia, Marek Bright House Network	Remein, Duane Huawei Technologies
Comment Type T Comment Status D	Comment Type T Comment Status D
Register bits 1.1913.7 through 1.1913.0 specify the spectrum granularity, in 1 MHz ste	PHY Discovery Start should be a 32 bit register as 16 bits relative to timestamp only
from 1 to 256 MHz, between successive search attempts the PHY is to use when	Suggested Romedy
searching for a PHY Link.	Change to 32 bits describing PHV Discovery Start lower (Peg 1016) & upper (Peg 1017) in
Since we have 255 positions (2^8-1) available, we can search from 0 to 255. Otherwise	e, a 45.2.1.116.1 & 45.2.1.116.2 resp. Update subsequent register numbers.
different encoding is needed, i.e., all zeros represent 1, all 1s represent 256.	Proposed Response Response Status W
SuggestedRemedy	PROPOSED ACCEPT.
Either change the range to 0 to 255, or show the actual encoding	
Proposed Response Response Status W	C/ 45 SC 45.2.1.116.1 $P$ 41 $L$ 34 $\#$ 2633
PROPOSED ACCEPT IN PRINCIPLE.	Remein, Duane Huawei Technologies
0 to 255 MHz, reserve the value of 0.	Comment Type T Comment Status D
C/ 45 SC 45.2.1.115 P 41 L 7 # 2384	We should provide a way to disable PHY Discovery windows at the CNU.
Hajduczenia, Marek Bright House Network	SuggestedRemedy
Comment Type T Comment Status D	After correcting the para numbering (45.2.1.116.1 not 45.2.a.116.1) add the following to the
"from 0 to 4095 in steps of 1 subcarrier" - unnecessary detail in the table. It should be	end of the para: "Setting the PHV Discovery start parameter to zero disables the PHV Discovery window "
covered in 45.2.1.115.1	Brancood Booponoo
SuggestedRemedy	Proposed Response Status W
Add definition of resolution and range to 45.2.1.115.1	FROFOSED ACCEPT.
Proposed Response Response Status W	
PROPOSED ACCEPT.	
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/ed	itorial G/general C/ 45 Page 26 of 31
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/o	ben W/written C/closed U/unsatisfied Z/withdrawn SC 45.2.1.116.1 11/4/2014 6:4:

Page 26 of 31 11/4/2014 6:43:04 PM

C/ 45	SC 45.2.1.117	P 42	L 11	# 2366	C/ 45	SC 45.2.1	1.117.1	P 42	L 19	# 2364
Hajduczeni	a, Marek	Bright House	Network		Hajduczen	na, Marek		Bright House	Network	
Comment	Type TR	Comment Status D		new CNU	Comment	Type T	Comn	ment Status D		
TA new It is ver assign	ry confusing why ed.	we would insert a value in	1.1917.14:0 and t	hen disallow it to be	when	the flag is Fa	lse the assoc	ciated CNU_ID has it	not been assigned	to a new CNU whereas ned."
Suggested	Remedy				There	are no True	and False va	lues defined, but on	ly 1 and 0.	
What is	s the purpose of t	his register 1.1917 altogeth	ner is unclear. Do	we set the value for	Suggested	dRemedy				
each n	ewly discovered	CNU and then write the val	ue for each new (	CNU that is supposed	Updat	e the listed se	entences to u	use values of 0 and	1.	
to be a The pu	ilscovered? irpose of reasters	45.2.1.117 and 45.2.1.118	s need to be discu	ussed in more detail. It	Proposed	Response	Respo	nse Status W		
seems	that right now we	e make it more complex the	in necessary - the	e value for CNU could	PROP	POSED ACCE	EPT.			
De ass Droposod I			ne management i	ayer	C/ 45	SC 45.2.1	1.120.1	P <b>43</b>	L 28	# 2404
					Hajduczen	nia, Marek		Bright House	Network	
This wa	as discussed in S	San Diego and it was agree	d that CNU_ID va	lues should be	Comment	Type <b>T</b>	Comn	nent Status D		
assign	ed by upper layer	s so that they can be aligned	ed with LLID value	es. Details on the	"The [	DS PHY Link	frame counte	er bits reflect the cur	rent DS PHY L	ink frame count." - we
Discrete CNU 1	s were presented	I in remein_3bn_02_0714.p	odf (see slide 9). E od shake mechan	sasicily the Allowed	usuall	y list register	numbers			
layers	and the PHY as o	described in referenced sec	tion 102.4.4.		Suggested	dRemedy				
C/ <b>45</b>	SC 45.2.1.117	P 42	L 8	# 2365	Chang frame	ge to "Registe count."	ers 1.1923.15	5 through 1.1923.0 re	epresent the cu	rrent DS PHY Link
Hajduczeni	a, Marek	Bright House	Network		Proposed	Response	Respo	nse Status W		
Comment	Туре <b>т</b>	Comment Status D		new CNU	PROP	OSED ACCE	EPT.			
What is	s "allowed" CNU_	ID? We do not define "disa	allowed" or any ot	her values.		SC 45 3 4	1 4 2 0 4	D 42	/ 20	# 0405
Suggested	Remedy				U 40	30 43.2.	1.120.1	P 43 Dright House	L Z9	# 2405
Remov	ve the word "allow	/ed" from 45.2.1.117			najuuczei		-	Bright House	INELWOIK	
Proposed I	Response	Response Status W			Comment	Type T	Comn	ment Status D		
	OSED ACCEPT I	N PRINCIPLE.	ID values		Reference to the whole Clause 102 is useless for a reader: "For additional information on this counter see Clause 102."					Iditional
Chang	e:				Suggested	dRemedy				
"the all to:	owed CNU_ID 1	CNU_ID 1 value has [not] been assigned to a CNU"		Either staten	insert a more	e detailed refe er	erence to where in C	Clause 102 we	use it, or remove this	
"the Al	lowed CNU_ID va	alue per register 1.1917.14:	0 has [not] been	assigned to a CNU"	Proposed	Response	Respo	nse Status W		
					PROP Remo	POSED ACCE	EPT IN PRIN	CIPLE.		

C/ **45** SC **45.2.1.120.1** 

IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

Cl <b>45</b>	SC 45.2.1.121.1	P <b>43</b>	L 51	# 2408	C/ <b>45</b>	SC 45.2.1.122	P <b>44</b>	L <b>46</b>	# 2643
Hajduczeni	a, Marek	Bright House I	Network		Remein, I	Duane	Huawei Tech	nnologies	
Comment 7 "A nega later tir	<i>Type</i> <b>T</b> ative value causes nes of transmission	Comment Status <b>D</b> the timing to be delayed, r at the CNU." -	esulting in		Comment Need FecC	<i>Type</i> <b>T</b> mdio register to re odeWordSuccess (	Comment Status D flect FecCodeWordCount, see 101.3.3.1.4 pg 117 In	FecCodeWordFa	Fec Counters ail, &
Suggested What d Proposed F PROP( This is	Remedy loes it mean "later Response DSED REJECT. a question not a co	times of transmission" Response Status W omment.			Suggester Add p Also a Proposed PROF	dRemedy per remein_3bn_15 add to MDIO Mappi Response POSED ACCEPT.	_1114.pdf ng table (see comment ag <i>Response Status</i> W	painst 101.3.3.1.4	pg 117 ln 31)
CI <b>45</b>	SC 45.2.1.122	P 44	L <b>12</b>	# 2410	CI 45	SC 45.2.1.122	P <b>44</b>	L <b>46</b>	# 2653
Hajduczeni	a, Marek	Bright House I	Network		Remein, I	Duane	Huawei Tech	nnologies	
Comment T "Relativ Suggested Change Proposed F PROPO	Type     T       ve TX Power offset       Remedy       e to "TX Power offs       Response       DSED ACCEPT.	Comment Status D adjustment" - why is it rela eet" Response Status W	ative and what is	s "adjustment"	Comment See c EDITO Rangi is to a event netwo Suggestee	Type <b>T</b> ant against 102.4.2 ORS NOTE (to be a ingOffset (signed n allow the operator to there is an analogo ork. dRemedy	Comment Status D pg 192 ln 18 removed prior to publicatio umber same size as PhyT o set the distance to the co ue optical link between the	n): need to create imingOffset) whic bax cable distribu cLT and coax ca	PhyTimingOffset e a mdio register for ch defaults to zero. This tion network in the able distribution
CI <b>45</b>	SC 45.2.1.122	P 44	L <b>22</b>	# 2639	Don't	need sign bit. See	remein_3bn_15_1114.pdf	, remove Ed Note	).
Remein, Du	lane	Huawei Techn	ologies		Proposed	Response	Response Status W		
Comment T	Гуре Т	Comment Status D		DataRate	PROF	POSED ACCEPT.			
See rel Need n Suggested Create Proposed F PROP(	ated comment aga ndio registers for p Remedy CI 45 registers per Response DSED ACCEPT.	inst 101.4.2.1.2 Pg 124, Li rovisioned data rates CLT_ remein_3bn_15_1114.pdf Response Status W	n 24 _DS_DataRate 8	& CLT_US_DataRate	Cl 45 Remein, E Comment Table Suggester Chan Table Proposed PROF	SC 45.2.1.122 Duane Type T 45–780—power of <i>dRemedy</i> ge to: 45–780—PHY power <i>Response</i>	P 44 Huawei Tech Comment Status D fset bit definitions missing wer offset bit definitions. Response Status W	L 5 nnologies "PHY"	# <u>2637</u>

C/ **45** SC **45.2.1.122** 

Hajduczenia, Marek       Bright House Network         Comment Type       T       Comment Status       D         Change "The PHY power offset, bits 7:0 of register 1.1926, is a" to "Registers 1.1926.7 through 1.1926.0 represent a"       SuggestedRemedy         SuggestedRemedy       Per comment       Per comment         Proposed Response       Response Status       W         PROPOSED ACCEPT.       P44       L21       # 2638         Change "The PHY power offset, bits 7:0 of register 1.1926, is a" to "Registers 1.1926.7 through 1.1926.0 represent a"       SuggestedRemedy         Per comment       Per comment       Per comment       Proposed Response       Response Status       W         PROPOSED ACCEPT.       Comment Type       T       Comment Status       D       Need mdio register to reflect FecCodeWordCount, FecCodeWordFail, & FecCodeWordSuccess (see 101.3.3.1.4 pg 117 In 31).       SuggestedRemedy       Add to Cl 45 at end of PMA/PMD register section.         Proposed Response       Response Status       W       PROPOSED ACCEPT.       Note this is included in remein_3bn_15_1114.pdf         C/ 45       SC 45.2.7a       P 44       L 39       # 2634         Comment Type       T       Comment Status       D       Table 45-191a shows a register for Resource Block type control but this function has been superseded by Pilot Pattern registers.         Sugg	C/ <b>45</b>	SC 45.2.1.122.1	P <b>4</b>	4	L 17	# 2411
Comment Type T       Comment Status D         Change "The PHY power offset, bits 7:0 of register 1.1926, is a" to "Registers 1.1926.7 through 1.1926.0 represent a"         SuggestedRemedy         Per comment         Proposed Response       Response Status W         PROPOSED ACCEPT.         2/1 45       SC 45.2.1.122.1       P 44       L 21       # 2638         Comment Type T       Comment Status D       Huawei Technologies         Comment Type T       Comment Status D       Need mdio register to reflect FecCodeWordCount, FecCodeWordFail, & FecCodeWordSuccess (see 101.3.3.1.4 pg 117 In 31).         SuggestedRemedy       Add to Cl 45 at end of PMA/PMD register section.       Proposed Response       Response Status W         PROPOSED ACCEPT.       Note this is included in remein_3bn_15_1114.pdf       2634         2/45       SC 45.2.7a       P 44       L 39       # 2634         2/1 45       SC 45.2.7a       P 44       L 39       # 2634         2/2 45       SC 45.2.7a       P 44       L 39       # 2634         2/2 45       SC 45.2.7a       P 44       L 39       # 2634         2/2 45       SC 45.2.7a       P 44       L 39       # 2634         2/2 45       SC 45.2.7a       P 44       L 39       # 2634	Hajduczeni	a, Marek	Bright	House	Network	
SuggestedRemedy Per comment         Proposed Response       Response Status       W         PROPOSED ACCEPT.       P44       L 21       # 2638         Cl 45       SC 45.2.1.122.1       P44       L 21       # 2638         Remein, Duane       Huawei Technologies       Remein, Duane       Huawei Technologies         Comment Type       T       Comment Status       D       Need mdio register to reflect FecCodeWordCount, FecCodeWordFail, & FecCodeWordSuccess (see 101.3.3.1.4 pg 117 ln 31).         SuggestedRemedy       Add to Cl 45 at end of PMA/PMD register section.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       Note this is included in remein_3bn_15_1114.pdf       Z/ 45       SC 45.2.7a       P 44       L 39       # 2634         Zhemein, Duane       Huawei Technologies       Comment Type       T       Comment Status       D         Table 45-191a shows a register for Resource Block type control but this function has been superseded by Pilot Pattern registers.       SuggestedRemedy         Remove line from table.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       N       PROPOSED ACCEPT.	Comment Chang through	<i>Type</i> <b>T</b> <i>C</i> e "The PHY power of h 1.1926.0 represent	o <i>mment Status</i> fset, bits 7:0 of r a"	<b>D</b> register	1.1926, is a" to	"Registers 1.1926.7
Proposed Response       Response Status       W         PROPOSED ACCEPT.       P44       L 21       # 2638         Remein, Duane       Huawei Technologies       Comment Type       T       Comment Status       D         Need mdio register to reflect FecCodeWordCount, FecCodeWordFail, & FecCodeWordSuccess (see 101.3.3.1.4 pg 117 ln 31).       SuggestedRemedy       Add to Cl 45 at end of PMA/PMD register section.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       Note this is included in remein_3bn_15_1114.pdf       2634       2634         C/ 45       SC 45.2.7a       P 44       L 39       # 2634         Remein, Duane       Huawei Technologies       2000000000000000000000000000000000000	Suggested Per co	<i>Remedy</i> mment				
Cl 45       SC 45.2.1.122.1       P 44       L 21       # 2638         Remein, Duane       Huawei Technologies         Comment Type       T       Comment Status       D         Need mdio register to reflect FecCodeWordCount, FecCodeWordFail, & FecCodeWordSuccess (see 101.3.3.1.4 pg 117 ln 31).       SuggestedRemedy         Add to Cl 45 at end of PMA/PMD register section.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       Note this is included in remein_3bn_15_1114.pdf       L 39       # 2634         Cl 45       SC 45.2.7a       P 44       L 39       # 2634         Remein, Duane       Huawei Technologies         Comment Type       T       Comment Status       D         Table 45-191a shows a register for Resource Block type control but this function has been superseded by Pilot Pattern registers.       SuggestedRemedy         Remove line from table.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       Proposed Response       Response Status       W	Proposed I PROP	Response Re OSED ACCEPT.	sponse Status	w		
Comment Type T       Comment Status D         Need mdio register to reflect FecCodeWordCount, FecCodeWordFail, & FecCodeWordSuccess (see 101.3.3.1.4 pg 117 ln 31).         SuggestedRemedy         Add to Cl 45 at end of PMA/PMD register section.         Proposed Response       Response Status W         PROPOSED ACCEPT.         Note this is included in remein_3bn_15_1114.pdf         C/ 45       SC 45.2.7a       P 44       L 39       # 2634         Remein, Duane       Huawei Technologies         Comment Type T       Comment Status D         Table 45-191a shows a register for Resource Block type control but this function has been superseded by Pilot Pattern registers.         SuggestedRemedy         Remove line from table.         Proposed Response       Response Status W         PROPOSED ACCEPT.	<i>Cl</i> <b>45</b> Remein, D	SC <b>45.2.1.122.1</b> uane	<i>Р</i> <b>4</b> Ниаw	<b>4</b> ei Tech	L <b>21</b> nologies	# 2638
SuggestedRemedy   Add to Cl 45 at end of PMA/PMD register section.   Proposed Response Response Status   PROPOSED ACCEPT.   Note this is included in remein_3bn_15_1114.pdf   Cl 45 SC 45.2.7a   P 44 L 39   Remein, Duane   Huawei Technologies   Comment Type T   Comment Status D   Table 45-191a shows a register for Resource Block type control but this function has been superseded by Pilot Pattern registers.   SuggestedRemedy   Remove line from table.   Proposed Response	Comment T Need r FecCo	<i>Type</i> <b>T</b> Condition register to reflect deWordSuccess (see	omment Status t FecCodeWord e 101.3.3.1.4 pg	<b>D</b> Count, 117 In	FecCodeWordF 31).	Fail, &
Proposed Response       Response Status       W         PROPOSED ACCEPT.       Note this is included in remein_3bn_15_1114.pdf         Cl 45       SC 45.2.7a       P 44       L 39       # 2634         Remein, Duane       Huawei Technologies       Image: Comment Status       D	Suggested Add to	Remedy CI 45 at end of PMA/	PMD register se	ection.		
Cl 45       SC 45.2.7a       P 44       L 39       # 2634         Remein, Duane       Huawei Technologies          Comment Type       T       Comment Status       D         Table 45-191a shows a register for Resource Block type control but this function has been superseded by Pilot Pattern registers.       SuggestedRemedy         Remove line from table.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       PROPOSED ACCEPT.       Proposed Response       Response	Proposed I PROP Note th	Response Re OSED ACCEPT. his is included in reme	sponse Status ein_3bn_15_111	W 4.pdf		
Comment Type       T       Comment Status       D         Table 45-191a shows a register for Resource Block type control but this function has been superseded by Pilot Pattern registers.       SuggestedRemedy         Remove line from table.       Proposed Response       Response Status       W         PROPOSED ACCEPT.       PROPOSED ACCEPT.       Proposed Response       Proposed Response	Cl <b>45</b> Remein Di	SC 45.2.7a	Р <b>4</b> - Нцам	<b>4</b> ei Tech	L <b>39</b>	# 2634
<ul> <li>Superseded by Pilot Pattern registers.</li> <li>SuggestedRemedy         <ul> <li>Remove line from table.</li> <li>Proposed Response</li> <li>Response Status</li> <li>W</li> <li>PROPOSED ACCEPT.</li> </ul> </li> </ul>	Comment	Type T Co	omment Status	D D		t this function has been
SuggestedRemedy Remove line from table. Proposed Response Response Status W PROPOSED ACCEPT.	supers	eded by Pilot Pattern	registers.		c type control bu	it this function has been
Proposed Response Response Status W PROPOSED ACCEPT.	Suggested Remov	Remedy ve line from table.				
PROPOSED ACCEPT.	Proposed I	Response Re	sponse Status	w		
	PROP	OSED ACCEPT.				

C/ <b>45</b>	SC	45.2.7a.1	P <b>44</b>	L 51	# <u>2</u> 391
Hajduczenia	, Ma	rek	Bright Ho	ouse Network	
Comment Ty	/pe	т	Comment Status D		
The text	des	cribing the r	egister set is confusing	I.	

#### SuggestedRemedy

Revise text to read: "The 10GPASS-XR DS profile descriptor registers describe modulation parameters for each downstream OFDM subcarrier. Register 12.0 describes modulation parameters for downstream OFDM subcarriers number 0 through 3. Register 12.1 describes modulation parameters for downstream OFDM subcarriers number 4 through 7, etc. Finally, register 12.1023 describes modulation parameters for downstream OFDM subcarriers number 4 through 7, etc. Finally, register 12.1023 describes modulation parameters for downstream OFDM subcarriers number 4 through 7, etc. Finally, register 12.1023 describes modulation parameters for downstream OFDM subcarriers number 4 through 4095. The assignment of individual bits in register 12.0 is shown in Table 45-191c. The remaining registers 12.1 through 12.1023 have the same bit structure as that of register 12.0. "

#### Apply the same change to 45.2.7a.2

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

The 10GPASS-XR DS profile descriptor registers determine the modulation parameters for each downstream OFDM subcarrier. Each register in the group controls 4 of the 4096 subcarriers that comprise the OFDM channel. Register 12.0 describes modulation parameters for downstream OFDM subcarriers number 0 through 3. Register 12.1 describes modulation parameters for downstream OFDM subcarriers number 0 through 3. Register 12.1 describes modulation parameters for downstream OFDM subcarriers number 0 through 3. Register 12.1 describes modulation parameters for downstream OFDM subcarriers number 4 through 7, etc. Finally, register 12.1023 describes modulation parameters for downstream OFDM subcarriers number 4092 through 4095. The assignment of individual bits in register 12.0 is shown in Table 45-191c. The remaining registers 12.1 through 12.1023 have the same bit structure as that of register 12.0. Changing the setting in these register does not affect the active profile, only the inactive profile (see 102.2.3 for a description of the Configuration ID bits in the PHY Link frame for information on active profile control).

CI <b>45</b>	SC 45.2.7a.1	P <b>45</b>	L 17	#	2393
Hajduczenia,	Marek	Bright F	House Network		

nment Type T Comment Status D

"Modulation to be used for a subcarrier 0" could be improved for clarity

SuggestedRemedy

Change to "Modulation profile for subcarrier 0". Same change for 12.0.15:12, 12.0.11:8, and 12.0.7:4 for downstream, and then 12.1024.15:12, 12.1024.11:8, 12.1024.7:4, and 12.1024.3:0

Proposed Response Response Status W

PROPOSED ACCEPT.

IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

C/ 45     SC 45.2.7a.1     P 45     L 33     # 2390       Haiduczenia, Marek     Bright House Network		C/ <b>45</b> Haiduczenia	SC <b>45.2.7a.3</b> a. Marek	Bright House	P 48 L 2 # 2396				
Comment Type T ( "Reserved values interpret reserved values on receive	Comment Status D ed as null on receive" - v	what does this m	ean? We usually ignore	Comment T Wrong 12.1023	ype <b>T</b> register numbe 39" - at least tha	Comment Status D r: "12.2048 through 12.1023 at is what Table 45–191a inc	7" should be "12. licates	2048 through	
SuggestedRemedy Per comment The same change to Table Proposed Response F	45–191c			SuggestedRemedy Per comment Proposed Response Response Status W PROPOSED ACCEPT.					
PROPOSED ACCEPT IN I Change "reserved" to "null	PRINCIPLE.			Cl <b>45</b> Hajduczenia	SC <b>45.2.7a.3</b> a, Marek	<b>.1</b> P 48 Bright House	L <b>36</b> e Network	# 2398	
Hajduczenia, Marek       Bright House Network         Comment Type       T       Comment Status       D         "Register bits 12.0.15 through 12.0.12 specify the modulation type of downstream subcarrier 3 for the first DS OFDM channel. Bit enumeration for bits 15:12 is the same as for bits 3:0 for DS Modulation Type SC0" contains a lot of information which is redundant.         Change the text to read         "Register bits 12.0.15 through 12.0.12 specify the modulation profile for the downstream OFDM subcarrier number 3. See registers 12.0.3 through 12.0.0 for interpretation of individual bits."				Definition of the number format should be improved. Remove the editorial note and repl "The number is a 16-bit signed fractional two's complement number where bit 15 is the sign bit, bit 14 is integer part and bits 13:0 are the fractional part." to read "The number is a 16-bit signed fractional two's complement number with the following structure: * bit 15 is the sign bit, * bit 14 represents the integer part of the number (1 or 0), * bits 13 through 0 represent the fraction part of the number." SuggestedRemedy The same change in 45.2.7a.3.2					
Apply the same change to SuggestedRemedy The same change should I 45.2.7a.2.4, with the prope Proposed Response F PROPOSED ACCEPT.	45.2.7a.1.2, 45.2.7a.1.3 be applied to 45.2.7a.2.1 r change from downstre <i>esponse Status</i> <b>W</b>	8, and 45.2.7a.1.4 I, 45.2.7a.2.2, 45 am to upstream.	l. .2.7a.2.3, and	Proposed R PROPO This ch requres number means.	Pesponse DSED REJECT ange provide no t of the WG sec . I think what is	Response Status W o significant improvement. T cretary that we improve the needed is a better descripti	he editors note w definition of this s on of what the 14	ras placed at the igned fractional bit fractional part	

C/ **45** SC **45.2.7a.3.1** 

# IEEE 802.3bn EPON Protocol over Coax (EPoC) TF Initial Working Group ballot comments

Approved Responses

<i>CI</i> <b>45</b> Hajduczeni	SC <b>45.2.a.116.1</b> ia, Marek	P <b>41</b> Bright House	L <b>38</b> Network	# 2363	C/ <b>56</b> Hajduczeni	SC <b>56.1.5</b> a, Marek	P <b>56</b> Bright Ho	L <b>40</b> buse Network	# 2376		
Comment The ec Registe	Type <b>T</b> Comi ditorial note makes more er shoudl point to where	ment Status <b>D</b> sense in the PCS / P it is actually describe	PHY link sections	and not in registers.	Comment 7 "In con that it h	<i>ype</i> <b>T</b> trast to previous as been allowed	Comment Status D e editions of IEEE Std 80 d in 802.3 since 2007 at	2.3," it is just an c least when 1G-EPON	ndd statement, given N and EFM came out.		
Suggested Insert i that loo	Remedy reference to where the th cation.	e timestamp details	are defined. Move	e the editorial note to	<i>Suggestedi</i> Change certain	Remedy = "In contrast to circumstances"	previous editions of IEE	E Std 802.3, in certai	n circumstances" to "In		
Proposed I PROP Remov	Response Res Response Response Res Response Response Res	onse Status W CIPLE.			Proposed F PROP( This is	Response DSED REJECT. outside our sco	Response Status W	,			
Cl <b>56</b> Hajduczeni	SC <b>56.1.3</b> ia, Marek	P <b>55</b> Bright House	L <b>10</b> Network	# 2375	C/ <b>67</b> Hajduczeni	SC <b>67.6.1</b> a, Marek	Р <b>61</b> Bright Ho	L <b>10</b> buse Network	# 2377		
Comment Time to Suggested Chang Chang	Type <b>T</b> Comi o change {EPoC_Rate} a <i>IRemedy</i> e "{EPoC_Rate}" to "up t e "{EPoC_Reach}" to "TE	nent Status <b>D</b> nd {EPoC_Reach} ir o 10 Gb/s" 3D"	nto something me	anigful	Comment 7 Note th (http://v already Suggested	Type <b>TR</b> at there is anou www.ieee802.org and it is ready Remedy	Comment Status <b>D</b> standing MR g/3/maint/requests/main for ballot.	t_1255.pdf) adding ch	nanges to Clause 67		
Proposed I PROP For 10 "Up to Up to 1	Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. For 10GPASS-XR-D CLT, Rate, replace {EPoC_Rate} with: "Up to 10 Gb/s (tx) Up to 1.8 Gb/s (rx)"					Once new revision process starts and merged base standard is available, alignment will be needed Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Add Editor's note to front of introduciton material on Page 21, near line 48: "Will need to align to the new 802.3 revision once balloted."					
For 10 "Up to Up to 1	GPASS-XR-U CNU, Rate 1.8 Gb/s (tx) 10 Gb/s (rx)"	e, replace {EPoC_Ra	te} with:		<i>Cl</i> <b>76</b> Hajduczeni	SC <b>76</b> a, Marek	Р <b>63</b> Bright Ho	L <b>1</b> buse Network	# 2378		
For {El "2.9(h)	PoC_Reach}, replace bot "	h with:			Comment 7 Title pr	<i>ype</i> <b>T</b> bably does not	Comment Status D need "2014" in it				
Add table comment (h): "Maximal differential distance between CNUs. Reach may vary depending on the CCDN."					SuggestedRemedy Remove "2014" from title of Clause 76						
					Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.						
						The "2014" in the Section header was a typo introduced for D11, it is not in D10. Will be removed by the editor.					
					Also, Editor needs to adjust copyright year for this framemaker file from 2013 to 2014.						
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						U/unsatisfied	Z/withdrawn S	76 C 76	Page 31 of 31 11/4/2014  6:43:04 PM		

SORT ORDER: Clause, Subclause, page, line