Handling Open Comments 2

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3/4/2020

Resubmitted Comments

- Comment Number is the Paper Trail
  - Draft 1.0 comment #59 → Draft 1.1 comment #10059
- Subclause, Page, Line of Draft 1.1
  - Previous references to Draft 1.0 added as editor note in comment
- Proposed Response Restarted for Draft 1.1

51 Open Comments

- 3 buckets
  - Discussion needed
  - Pending further work
  - Overtaken by events
- Commenters to disposition

Use of Ad Hoc Time

Comments to be Addressed Listed in Agenda

Review of Comment & Suggested Remedies

Review Affected Items in the Draft

Discuss

Capture Discussion in Proposed Response for Face-to-Face Meeting

Discussion of Comment 10247

Feb 26, 2020 Ad Hoc

These are open comment #247 from Draft 1.0 – Copper Cable Adaptation During Operation

CI 162 SC 162.8.11 P138 L32 # 247

Ran, Adee Intel

Draft 1.1: Pg 135, Ln 34
Comment #10247

Comment Type T *Comment Status* D

The PMD control function as currently specified is only effective during start up.

Operation across a wide range of temperatures in some environments may cause slow changes in channel and device characteristics that may require occasional changes of the Tx equalization, preferably without link flaps. It would be good to enable doing it while the link is up.

In Data mode, the startup (training) protocol is inactive. We can specify that when mr_training_en set to 0, instead of exchanging the control and status fields through the protocol, these fields will be written to and read from management registers if MDIO is implemented. Management can relay the control and status fields to/from the link partner through higher level messaging (such as LLDP).

A detailed proposal is planned, but the requested addition in the PMD clauses is a subclause for behavior of the PMD control function when training is false (data mode).

SuggestedRemedy

Add the following paragraphs:

When the training variable is set to false (see 136.8.11.7.1), the PMD control function may optiionally continue using Equalization control as defined 136.8.11.4 in the SEND_DATA state, using MDIO registers or alternative methods to exchange control and status fields with the link partner instead of the training frame specified in 136.8.11.1.

NOTE--When training is false, any update to variables corresponding to a change of the Modulation and precoding request bits or the Initial condition request bits, or to setting the Coefficient request bits to "No equalization", can be disruptive to a network.

Proposed Response *Response Status* W

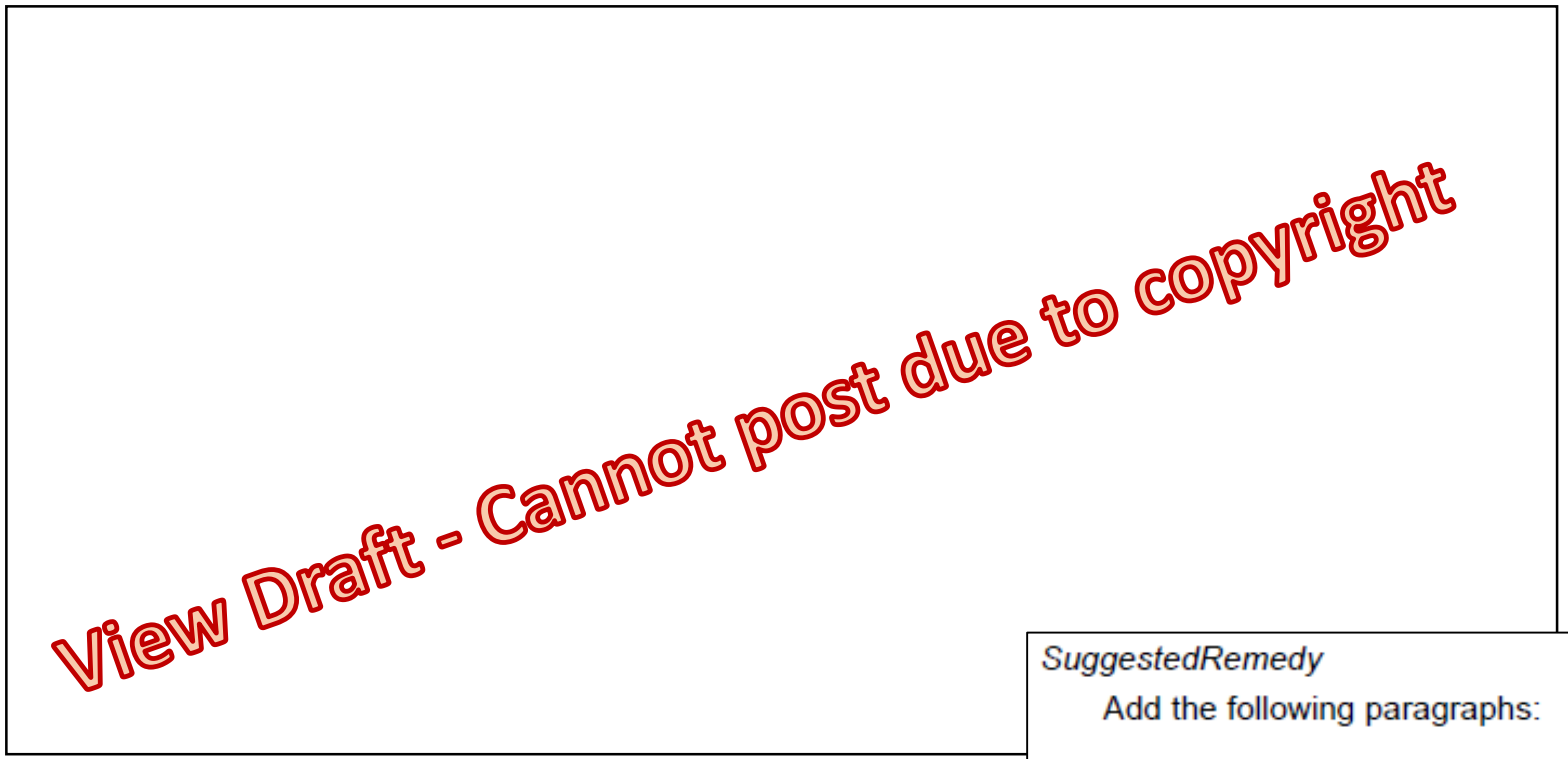
PROPOSED REJECT.

Comment alludes to a future proposal. Propose deferring discussion of this topic until the proposal is presented. Request that commenter use the ad hoc for this purpose.

Discussion

- Proposed response from Draft 1.0: Reject

Begin with Adee Ran as commenter, then proceed to queue



SuggestedRemedy

Add the following paragraphs:

When the training variable is set to false (see 136.8.11.7.1), the PMD control function may optiionally continue using Equalization control as defined 136.8.11.4 in the SEND_DATA state, using MDIO registers or alternative methods to exchange control and status fields with the link partner instead of the training frame specified in 136.8.11.1.

NOTE--When training is false, any update to variables corresponding to a change of the Modulation and precoding request bits or the Initial condition request bits, or to setting the Coefficient request bits to "No equalization", can be disruptive to a network.

Discussion of Comments 10158, 10157, 10143, 10197, 10199

Mar 4, 2020 Ad Hoc

These are re-submitted comments from draft 1.0 (#158, 157, 143, 197, and 199)

Cl 120G SC 120G.4.2 P 232 L 19 # 10157

Dawe, Piers Mellanox

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

[Comment resubmitted from Draft 1.0. Subcl. 120G.4.2 - Pg 225 - ln 44]

This allows combinations such as gDC=-3, gDC2=-3 that should not happen, receivers don't need to design for, and waste time in the "for each valid combination of gDC and gDC2" measurement procedure.

SuggestedRemedy

Limit the combinations:

gDC2	gDC
0 or 1	3 to 14
2	6 to 14
3	9 to 14

Cl 120G SC 120G.4.2 P 232 L 15 # 10197

Ghiasi, Ali Ghiasi Quantum/Inphi

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

[Comment resubmitted from Draft 1.0. Subcl. 120G.4.2 - Pg 226 - ln 40]

gDC max gian of 14 dB is unecessary with a DFE receiver and channel <=16 dB

SuggestedRemedy

12 dB would be more than adequete and with further study we can even further reduce the gDC.

Cl 120G SC 120G.4.2 P 232 L 19 # 10143

Dawe, Piers Mellanox

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

[Comment resubmitted from Draft 1.0. Subcl. 120G.4.2 - Pg 225 - ln 46]

Are 1 dB steps for gDC2 fine enough?

SuggestedRemedy

Change to 1/2 dB?

Cl 120G SC 120G.4.2 P 232 L 19 # 10199

Ghiasi, Ali Ghiasi Quantum/Inphi

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

[Comment resubmitted from Draft 1.0. Subcl. 120G.4.2 - Pg 226 - ln 40]

To speed up testing and eliminating weired cases one should gDC/gDC2 combinations

SuggestedRemedy

Discussion

- There were two competing sets of numbers.
- Further offline discussion has lead to a proposed compromise:

Draft 1.1

gDC2	gDC
0	-3 to -14
-1	-3 to -14
-2	-3 to -14
-3	-3 to -14

Piers' Proposal

gDC2	gDC
0	-3 to -14
-1	-3 to -14
-2	-6 to -14
-3	-9 to -14

Ali's Proposal

gDC2	gDC
0	-1 to -4
-1	-1 to -7
-2	-4 to -13
-3	-8 to -13

OIF

Proposed

gDC2	gDC
0	-2 to -6
-1	-2 to -9
-2	-4 to -11
-3	-8 to -13

- Begin with Piers and Ali as commenters, then proceed to queue

Discussion

- Proposed response from draft 1.0: Reject; due to no proposal
- Begin with Piers Dawe as commenter, then proceed to queue

Cl **120G**	*SC* **120G.4.2**	*P* **232**	*L* **15**	# 10158
Dawe, Piers		Mellanox		
Comment Type	**TR**	*Comment Status*	**D**	

[Comment resubmitted from Draft 1.0. Subcl. 120G.4.2 - Pg 225 - ln 40]

These look like the CTLE limits for TP1a and TP4 far end.

SuggestedRemedy

Where are the limits for TP4 near end?