Cl **00** *SC* *P* *L* # 2

D'Ambrosia, John Dell

Comment Type **ER** *Comment Status* **A**

Modify definitions in 1.4 for PSE and PD types

SuggestedRemedy

Add definitions for 1.4

Response *Response Status* **C**

ACCEPT. NonEz.

Add definitions subclause to include type definitions. Place in clause 1.

Cl **00** *SC* **0** *P* *L* # 4

D'Ambrosia, John Dell

Comment Type **TR** *Comment Status* **A**

pics are needed

SuggestedRemedy

add pics

Response *Response Status* **C**

ACCEPT. NonEz.

See presentation 3bu_chabot_1&2_0915.pdf

Cl **104** *SC* **1** *P* **13** *L* **7** # 82

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

"power interface (PI)" is all lowercase but "Power Source Equipment (PSE)" and "Powered Device (PD)" have capitalized first letters. This happens many times throughout the draft. Is this intentional?

SuggestedRemedy

Make "PI", "PSE", and "PD" consistent with capitalized letters.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **1.3** *P* **14** *L* **11** # 83

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Figure number is "104-1-1", also "modell".

SuggestedRemedy

Change to "Figure 104-1 1-Pair PoDL power sourcing equipment (PSE) relationship to the physical interface circuitry and the IEEE 802.3 Ethernet model".

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **1.3** *P* **14** *L* **31** # 84

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

ure number is "104-2-1", also "modell". As well as "PHY", which is not in the title for Figure 104-1.

SuggestedRemedy

Change to "Figure 104-2 1-Pair PoDL powered device (PD) relationship to the physical interface circuitry and the IEEE 802.3 Ethernet model".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEZ.

Fix "modell", draft style is to use - after figure number which causes confusion when figure caption starts with a number!

Replace "1-pair" with "Single-pair" throughout draft.

Cl **104** *SC* **1.4** *P* **14** *L* **54** # 85

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

I'm no expert but to me "compatible with 100BASE-T1 Ethernet" doesnt roll off the tongue very easily.

SuggestedRemedy

Change "with 100BASE-T1 Ethernet" to "with a 100BASE-T1 PHY". This also happens in 104.3.1 and 104.4.1.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEZ.

Scrub "100 or 1000BASE-T1 Ethernet" and replace with "a 100 or 1000BASE-T1 PHY"

Cl **104** *SC* **1.4** *P* **15** *L* **1** # 86

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Same as last comment except for "1000BASE-T1"

SuggestedRemedy

Change "with 1000BASE-T1 Ethernet" to "with a 1000BASE-T1 PHY". This also happens in 104.3.1 and 104.4.1.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEZ.

See comment 85.

Cl **104** *SC* **1.4** *P* **15** *L* **6** # 87

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Figure number is "104-3-1".

SuggestedRemedy

Remove "-1".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEZ.

See comment 84.

Cl **104** *SC* **104.1** *P* **13** *L* **7** # 44

XU, Dayin Rockwell Automation

Comment Type **ER** *Comment Status* **A**

the first letter of "power" and "interface" words should be capital letter

SuggestedRemedy

Change "power interface" to "Power Interface"

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.1.2.1** *P* **13** *L* **51** # 45

XU, Dayin Rockwell Automation

Comment Type **E** *Comment Status* **A**

The subclause 104.1.2.1 has no relationship to 104.1.2, should remove it or move the subclause 104.1.2.1 to somewhere else.

SuggestedRemedy

Remove subclause 104.1.2.1, and combine the description into the subclause 104.1.4

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.1.3** *P* **14** *L* **1** # 46

XU, Dayin Rockwell Automation

Comment Type **ER** *Comment Status* **A**

The format of the title of the subclause in IEEE802.3 standard should be "only first letter of first work is in capital, all other words' first letter is in lower case". This comment applies to all similar places (e.g. line 21 page 15) in this draft.

SuggestedRemedy

Change "Relationship of 1-pair PoDL to the IEEE802.3 Architecture" to "Relationship of 1-pair PoDL to the IEEE802.3 architecture". Review all titles of subclause in this draft, ensure the correct format is used.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.1.3** *P* **14** *L* **3** # 47

XU, Dayin Rockwell Automation

Comment Type **ER** *Comment Status* **R**

The power entity in a device supporting 1-pair PoDL should not be optional.

SuggestedRemedy

Change "1-pair PoDL comprises an optional power entity ..." to "1-pair PoDL comprises a power entity ...".

Response *Response Status* **C**

REJECT. NonEZ.

100BASET1 and 1000BASET1 do not require PoDL for compliance.

Cl **104** *SC* **104.2** *P* **15** *L* **23** # 25

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The maximum allowed DC loop resistance of 6.5 ohms is limiting for the 1W PD unregulated 12V class. As is, the PSE source resistance must be less than 0.86 ohms and VPDmin is 3.75V which is pushing VOFF down to 3.6V.

SuggestedRemedy

Reduce the max loop resistance. For example, reducing the max loop resistance to 6 ohms would allow the VPD,min to increase to 4V and the max PSE source resistance to increase to 1 ohm.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEZ.

Restrict loop resistance for 12V unreg class to less than 6 ohms in subclause 104.2.

Cl **104** *SC* **104.2** *P* **15** *L* **29** # 35

Dwelley, David — Linear Technology

Comment Type **T** *Comment Status* **A**

Table 104-1: It's not clear to me that we need 48V unreg classes. 48V vehicles will typically not use 4 12V lead-acid cells in series, and "cold crank" behavior will be quite different from 12V and 24V classes.

SuggestedRemedy

Consider removing classes 8 and 9.

Response *Response Status* **C**

ACCEPT. NonEZ.

Delete classes 8 and 9.

Cl **104** *SC* **104.2** *P* **15** *L* **29** # 48

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Table 104-1
The reader may not clearly understand the meaning of unreg and reg in Table 104-1. Description on the meaning is necessory.

SuggestedRemedy

Adding description of "unreg" and "reg" in Table 104-1.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEZ.

Add definitions to clause 1 for reg and unreg PoDL PSE.

Cl **104** *SC* **104.3.1** *P* **16** *L* **22** # 1

D'Ambrosia, John — Dell

Comment Type **ER** *Comment Status* **A**

Per 104.3.1 - "there are two types of PSEs:...." However, Section 1.4 already defines two types of PSEs, see 1.4.403 and 1.4.405. Further clarification is needed to prevent reader confusion.

SuggestedRemedy

Add simple intro
"For PoDL system types, there are...."

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.3.3** *P* **16** *L* **31** # 33

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The PSE state diagram needs to be revised in order to be consistent with the requirement that a PD that no longer exhibits valid MPS should receive sleep bias.

SuggestedRemedy

Revise the PSE state diagram and MPS state diagram as described in gardner_3bu_1_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEZ.

OBE by motion on gardner_3BU_1_0915.PDF.

Cl **104** *SC* **104.3.3** *P* **20** *L* **15** # 49

XU, Dayin — Rockwell Automation

Comment Type **T** *Comment Status* **A**

Figure 104-4
The name of "START_DETECTION" and "START_CLASSIFICATION" is more like a behavior not a state.

SuggestedRemedy

Change "START_DETECTION" to "PD_DETECTION" or "DETECTION", and change "START_CLASSIFICATION" to "PD_CLASSIFICATION" or "CLASSIFICATION"

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.3.3.4** *P* **17** *L* **24** # 36

Dwelley, David Linear Technology

Comment Type **E** *Comment Status* **A**

mr_ prefix is inherited from PoE and is meaningless here

SuggestedRemedy

Remove mr_ prefixes throughout

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.3.3.4** *P* **17** *L* **25** # 37

Dwelley, David Linear Technology

Comment Type **T** *Comment Status* **A**

MPS stands for "maintain power signature" - with the new sleep mode, this isn't directly relevent - "maintain full voltage signature" is perhaps more descriptie

SuggestedRemedy

Change MPS to MFVS throughout

Response *Response Status* **C**

ACCEPT. NonEZ.

Use MVS instead of MFVS.

Also change MPDO to MVDO.

Cl **104** *SC* **104.3.3.4** *P* **18** *L* **18** # 38

Dwelley, David Linear Technology

Comment Type **E** *Comment Status* **A**

"If true then valid. If false then invalid" is unnecessarily terse.

SuggestedRemedy

Change to "True indicates that valid class information was received."

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.3.3.5** *P* **18** *L* **38** # 39

Dwelley, David Linear Technology

Comment Type **T** *Comment Status* **A**

tclass_watchdog_timer is unlike other timer names - "watchdog" is superfluous

SuggestedRemedy

Change to "tclass_timer" throughout.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.3.3.6** *P* **20** *L* **12** # 40

Dwelley, David Linear Technology

Comment Type **T** *Comment Status* **A**

Figure 104-4 (PSE state machine): mr_pse_enable term in exit of IDLE state is redundant since !mr_pse_enable globally leads to the DISABLED state

SuggestedRemedy

Change exit condition to pse_ready only.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.3.3.6** *P* **20** *L* **38** # 41

Dwelley, David Linear Technology

Comment Type **T** *Comment Status* **A**

Exit from POWER_UP state to POWER_ON state: !tpon_timer_done term is redundant since tpon_timer_done exits to RESTART_DELAY without other conditions

SuggestedRemedy

Remove !tpon_timer_done term

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **104.3.4** *P* **21** *L* **1** # 8

Gardner, Andrew Linear Technology Cor

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

The detection state diagram shown in Figure 104-5 incorporates a new timer called vsig_hold_timer, but the value for this timer is not specified in Table 104-2.

SuggestedRemedy

Add an entry to Table 104-2 for the vsig_hold_timer as proposed in gardner_3bu_3_0915.pdf.

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

NonEZ.

Cl **104** *SC* **104.3.4** *P* **21** *L* **46** # 9

Gardner, Andrew Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The slew rate specification for Idetect in Table 104-2 is TBD.

SuggestedRemedy

Replace the TBD for Idetect max slew rate with the value proposed in gardner_3bu_2_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3bu_2_0915.pdf.

Cl **104** *SC* **104.3.4** *P* **22** *L* **1** # 34

Gardner, Andrew Linear Technology Cor

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

The maximum output capacitance of 1nF allowed during detection in Table 104-2 may be limiting.

SuggestedRemedy

Change the value as proposed in gardner_3bu_3_0915.pdf.

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

NonEz.

Cl **104** *SC* **104.3.4** *P* **22** *L* **1** # 7

Gardner, Andrew Linear Technology Cor

Comment Type **T** *Comment Status* **A**

There are several TBDs in Table 104-2.

SuggestedRemedy

Replace the TBDs with limits as proposed in gardner_3bu_3_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_2_0915.PDF.

Only Items 8 and 9 addressed in gardner_3bu_1_0915.pdf.

Cl **104** *SC* **104.3.4.1** *P* **21** *L* **42** # 26

Gardner, Andrew Linear Technology Cor

Comment Type **T** *Comment Status* **A**

Item 2 in Table 104-2, short circuit current, only needs a max limit. The minimum is implied by the max value for item 3, valid test probe current.

SuggestedRemedy

Remove 20mA from the minimum value column for item 2 in Table 104-2.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **104.3.6** *P* **22** *L* **53** # 42

Dwelley, David Linear Technology

Comment Type **E** *Comment Status* **A**

"...electrical limits set out in Table..."
"set out" is unneeded

SuggestedRemedy

Remove "set out"

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **104.3.6** *P* **23** *L* **1** # 50

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Table reference error

SuggestedRemedy

Change table reference from "Table 104-5" to "Table 104-3"

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **104.3.6** *P* **23** *L* **41** # 28

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

Items 2 & 5 in Table 104-3 are TBDs.

SuggestedRemedy

Replace the TBDs with limits as proposed in gardner_3bu_2_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

Cl **104** *SC* **104.3.6** *P* **23** *L* **42** # 52

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Subclause reference error.

SuggestedRemedy

Not sure there is a subclause that could be referenced for this item 5

Response *Response Status* **C**

ACCEPT. NonEz.

Use 104.3.4 instead.

Cl **104** *SC* **104.3.6** *P* **23** *L* **7** # 51

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Table 104-3
Adjust the item sequence in this table so that the reader can read it in a more logical way. Also consider the item sequence in Table 104-6. The reader may read these two tables together in the end. So try to make these two tables organized to be read more easily in parallel.

SuggestedRemedy

1. Move item 4 before Item 2
2. Move item 5 before Item 3

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **104.3.6** *P* **23-24** *L* # 29

Gardner, Andrew — Linear Technology Cor

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

Items 8, 9, and 11 are TBD in Table 104-3.

SuggestedRemedy

Replace TBDs with limits as proposed in gardner_3bu_3_0915.pdf.

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

NonEz.

Cl **104** *SC* **104.3.6** *P* **24** *L* **23** # 53

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Subclause 104.3.6.5 reference error

SuggestedRemedy

Change subclause reference "104.3.6.5" to "104.3.6.4" for item 18 and 19 in Table 104-3

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** SC **104.3.6.2** P **24** L **39** # 27
Gardner, Andrew Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The limits for ripple noise in Table 104-3 are TBD.

SuggestedRemedy

Replace the TBDs with limits as proposed in gardner_3bu_2_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_2_0915.PDF.

Cl **104** SC **104.3.6.6** P **25** L **16** # 30
Gardner, Andrew Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The value for the test resistor specified in 104.3.6.6 is TBD.

SuggestedRemedy

Replace the TBD with the value proposed in gardner_3bu_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See wakeup and sleep presentation first
gardner_3bu_1_0915.pdf

Cl **104** SC **104.3.7** P **25** L **38** # 31
Gardner, Andrew Linear Technology Cor

Comment Type **T** *Comment Status* **A**

Removing power entirely from the PI in the absence of MPS is incompatible with the reqirements for a sleeping PD.

SuggestedRemedy

Reword subclause 104.3.7 as described in gardner_3bu_1_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See gardner_3bu_1_0915.pdf first

Cl **104** SC **104.3.7.1** P **25** L **43** # 32
Gardner, Andrew Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The requirements for MPS need to be re-evaluated given the requirement to maintain a reduced power level at the PI when a PD goes to sleep.

SuggestedRemedy

Reword subclause 104.3.7.1 as described in gardner_3bu_1_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See gardner_3bu_1_0915.pdf first

Cl **104** SC **104.4.1** P **26** L # 3
D'Ambrosia, John Dell

Comment Type **ER** *Comment Status* **A**

PDs are already defined in 802.3. See 1.4.402 and 1.4.404

SuggestedRemedy

add definitions to 1.4 for types of PDs for PoDL

Response *Response Status* **C**

ACCEPT. NonEZ.

Changes to clause 1 per the draft with defs.

Cl **104** SC **104.4.3** P **28** L **1** # 6
Gardner, Andrew Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The PD state diagram needs to be revised to be consistent with the new requirement that a sleeping PD remove its MPS prior to entering sleep.

SuggestedRemedy

Revise the PD state diagram as proposed in gardner_3bu_1_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See gardner_3bu_1_0915.pdf first

Cl **104** *SC* **104.4.3.1** *P* **26** *L* **27** # 10

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The overview of the PD's behavior needs to be revised in order to be consistent with requirements for a sleeping PD.

SuggestedRemedy

Replace with baseline text as proposed in gardner_3bu_1.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See gardner_3bu_1_0915.pdf first

Cl **104** *SC* **104.4.4** *P* **29** *L* **1** # 11

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The baseline text in this subclause needs to be revised to reflect the requirements for wakeup from the PD sleep.

SuggestedRemedy

Revise the baseline text in subclause 104.4.4 as proposed in gardner_3bu_1_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See gardner_3bu_1_0915.pdf first

Cl **104** *SC* **104.4.4** *P* **29** *L* **17** # 12

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The PD detection signature characteristics listed in Tables 104-4 and 104-5 conflict with the voltage required for a sleeping PHY (3.3V).

SuggestedRemedy

Revise the limits in Table 104-4 and 104-5 as proposed in gardner_3bu_1_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See gardner_3bu_1_0915.pdf first

Cl **104** *SC* **104.4.4** *P* **29** *L* **37** # 13

Gardner, Andrew — Linear Technology Cor

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

The min limit for Cbad in Table 104-5 is TBD.

SuggestedRemedy

Replace the Cbad min TBD with the limit proposed in gardner_3bu_3_0915.pdf.

Proposed Response *Response Status* **Z**

PROPOSED REJECT.

This comment was WITHDRAWN by the commenter.

NonEz.

Cl **104** SC **104.4.6** P **29** L **48** # 58

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Consider align the structure of this subclause to the subclause 104.3.6.

The structure of 104.3.6
104.3.6.1 Output voltage
104.3.6.2 Power feeding ripple and noise
104.3.6.3 Overload current
104.3.6.4 Output current
104.3.6.5 Turn on time
104.3.6.6 Turn off time
104.3.6.7 Continuous output power in POWER_ON state
104.3.6.8 PSE stability

The structure of 104.4.6
104.4.6.1 PD input voltage
104.4.6.2 Input average power
104.4.6.3 PD stability
104.4.6.4 PD ripple and noise
104.4.6.5 Input current

these two structure could be organized better for easy reading.

SuggestedRemedy

Here are suggested changes:

Change the structure of 104.3.6 to
104.3.6.1 Output voltage
104.3.6.2 Output current
104.3.6.3 Power feeding ripple and noise
104.3.6.4 Overload current
104.3.6.5 Turn on time
104.3.6.6 Turn off time
104.3.6.7 Continuous output power in POWER_ON state
104.3.6.8 PSE stability

Change the structure of 104.4.6 to
104.4.6.1 PD input voltage
104.4.6.2 Input current
104.4.6.3 PD ripple and noise
104.4.6.4 Input average power
104.4.6.5 PD stability

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** SC **104.4.6** P **29** L **6** # 5

Gardner, Andrew — Linear Technology Cor

Comment Type **E** *Comment Status* **A**

The additional information column for Table 104-6 on page 29 is empty.

SuggestedRemedy

Populate the additional information column with references to the relevant subclauses for each item.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** SC **104.4.6** P **30** L **48** # 16

Gardner, Andrew — Linear Technology Cor

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

The limits for items 6 and 7 in Table 104-6 are TBD.

SuggestedRemedy

Replace the TBDs for items 6 and 7 with limits proposed in gardner_3bu_3_0915.pdf.

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

NonEz.

Cl **104** SC **104.4.6** P **30** L **6** # 14

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

Items 1-3 in Table 104-6 are TBDs.

SuggestedRemedy

Replace the TBDs for items 1-3 in Table 104-6 with limits proposed in gardner_3bu_2_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_2_0915.PDF.

See presentation first

Cl **104** *SC* **104.4.6** *P* **31** *L* **6** # 17

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The limits for items 8 and 9 in Table 104-6 are TBD.

SuggestedRemedy

Replace the TBDs for items 8 and 9 in Table 104-6 with limits proposed in gardner_3bu_1_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See presentation first

Cl **104** *SC* **104.4.6.1** *P* **31** *L* **22** # 15

Gardner, Andrew — Linear Technology Cor

Comment Type **E** *Comment Status* **A**

There appear to be extra carriage returns after subclause 104.4.6.1.

SuggestedRemedy

Remove the extra carriage returns.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **104.4.6.5** *P* **32** *L* **11** # 18

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

There is no corresponding entry in Table 104-6 for tsleep.

SuggestedRemedy

Replace tsleep with a hard limit as proposed in gardner_3bu_1_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See presentation first

Cl **104** *SC* **104.4.7** *P* **32** *L* **21** # 19

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The text in subclause 104.4.7 needs to be revised to state that valid MPS shall be presented when the PD wishes to receive full-power at the MDI/PI. In addition, the MPS requirements need to be revised to be consistent with the new MPS requirements that are being proposed for the PSE.

SuggestedRemedy

Revise the text in subclause 104.4.7 as proposed in gardner_3bu_1_0915.pdf.

Response *Response Status* **C**

ACCEPT. NonEz.

OBE by motion on gardner_3BU_1_0915.PDF.

See presentation first

Cl **104** *SC* **104.5.1** *P* **33** *L* **8** # 94

Maguire, Valerie — Siemon

Comment Type **E** *Comment Status* **A**

I believe the convention is to use "shall" when a specification is mandatory.

SuggestedRemedy

Consider replacing "must" with "shall".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEZ.

This is related to PD isolation topic to be explored further.

Cl **104** *SC* **104.5.3** *P* **32** *L* **47** # 20

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

The text "All other Ethernet physical layers should refer to their respective clauses for PHY electrical specifications" is potentially problematic. For example, the transmitter test fixtures called out in both 802.3bp and 802.3bw use DC coupled terminations or baluns.

SuggestedRemedy

Ask 802.3bw and 802.3bp to add low loss AC coupling capacitors into the transmitter test fixtures in order to make them compatible with PoDL PSE and PD PHY transmitters.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEz.

Accepting this comment results in no change to the draft.

Maintainance request for bw.
Comment lodged with bp.

Cl **104** *SC* **104.5.3.1** *P* **32** *L* **50** # 95

Gardner, Andrew — Linear Technology Cor

Comment Type **T** *Comment Status* **A**

Currently Clause 104 incorporates an amended return loss specification for 100BASE-T1 applications that use PoDL in order to relax the OCL requirement on the PoDL inductors by a factor of two. Given that the relative high-pass pole frequencies are the same for 1000BASE-T1, i.e. 10MHz HPF for 1000BASE-T1 vs. 1MHz HPF for 100BASE-T1, is there any reason why we can't do something similar for the 1000BASE-T1 MDI RL for PoDL?

SuggestedRemedy

Add an amended MDI return loss specification for 1000BASE-T1 PoDL applications as follows:

Return loss >=

18-18*log10(20/f)dB for 2 <= f < 20
18dB for 20 <= f < 100
18-16.7log10(f/100)dB for 100 <= f < 600

where f is in MHz.

Response *Response Status* **C**

ACCEPT. NonEZ.

OBE by motion on gardner_3BU_3_0915.PDF.

See gardner_3bu_3_0915.pdf

Cl **104** *SC* **104.5.3.1** *P* **33** *L* **9** # 21

Gardner, Andrew — Linear Technology Cor

Comment Type **E** *Comment Status* **A**

Footnote 1 is informative.

SuggestedRemedy

Either move footnote 1 to an informative annex or delete it.

Response *Response Status* **C**

ACCEPT. NonEz.

Move to A-1.

Cl **104** *SC* **104.6.3.1** *P* **35** *L* **31** # 54

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Figure 104-10 reference error

SuggestedRemedy

Change "Figure 104-10" to "Figure 104-9"

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **104.6.3.2** *P* **36** *L* **7** # 55

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Change "... pulling it PI port ..." to "... pulling its PI port ..."

SuggestedRemedy

Change "... pulling it PI port ..." to "... pulling its PI port ..."

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **104.6.3.2** *P* **36** *L* **8** # 56

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Figure 104-11 reference error, line 34 has the same error.

SuggestedRemedy

Change "Figure 104-11" to "Figure 104-10"

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **104.6.3.4** *P* **37** *L* **1** # 23

Gardner, Andrew — Linear Technology Cor

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

The electrical limits in Table 104-7 are not compatible with the shunt capacitance presented by a 100BASE-T1 PHY.

SuggestedRemedy

Revise the electrical limits as proposed in gardner_3bu_4_0915.pdf.

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

NonEz.

Cl **104** *SC* **104.6.3.4** *P* **37** *L* **1** # 22

Gardner, Andrew — Linear Technology Cor

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

Item 3 has a TBD for the min limit.

SuggestedRemedy

Replace the item 3 TBD with the value proposed in gardner_3bu_4_0915.pdf.

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

NonEz.

Cl **104** *SC* **104.6.4.3** *P* **38** *L* **39** # 57

XU, Dayin — Rockwell Automation

Comment Type **ER** *Comment Status* **A**

Figure reference error, has same error in line 50

SuggestedRemedy

Line 39: change Figure 104-12 to Figure 104-11
Line 50: change Figure 104-13 to Figure 104-12

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **104.6.4.3** *P* **39** *L* **6** # 43

Dwelley, David — Linear Technology

Comment Type **E** *Comment Status* **A**

Table 104-8: type A and type B terms are used but never defined.

SuggestedRemedy

Remove "type A" and "type B" and the parens around 100BASE-T1 and 1000BASE-T1.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEz.

Type A and B to be defined in clause 1.
Remove references to 100 and 1000BASE-T1 in this table.

Cl **104** *SC* **104.6.4.4** *P* **41** *L* **12** # 24

Gardner, Andrew — Linear Technology Cor

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

The baseline text for subclause 104.6.4.4 is TBD.

SuggestedRemedy

Incorporate the baseline text as proposed in gardner_3bu_4_0915.pdf.

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

NonEz.

Cl **104** *SC* **2** *P* **15** *L* **30** # 88

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

I believe there should be a space between the 12/24/48 and "V".

SuggestedRemedy

Change to "12 V", "24 V", and "48 V". Also happens in Table 104-6. Fix and make consistent throughout draft.

FrameMaker: Use ctrl+space.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **3.3.2** *P* **16** *L* **46** # 89

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

"21.5" is an external reference and should be green.

SuggestedRemedy

See comment. This also happens in 104.4.3.2.

FrameMaker: Right-click on text, Character > External.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **3.3.3** *P* **18** *L* **7** # 90

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

"IPort" and "ISleep" need to be capital "I" and subscript "Port" or "Sleep".

SuggestedRemedy

See comment. Make consistent throughout draft.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **3.3.4** *P* **18** *L* **29** # 91

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

"14.2.3.2" is an external reference and should be green.

SuggestedRemedy

See comment. This also happens in 104.4.3.4.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **3.3.6** *P* **19** *L* **12** # 59

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Should "PD information byte" be "PD_information_byte"?

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **3.3.6** *P* **19** *L* **13** # 92

Donahue, Curtis UNH-IOL

Comment Type **T** *Comment Status* **A**

"Table 104-11" doesnt exist.

SuggestedRemedy

Update with correct cross-reference.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** SC **3.4** P **21** L **25** # 60
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

"the link segment may not be called out to preserve clarity". I'm not sure I understand what this is trying to tell the reader. Not mentioning the link segment preserves clarity? Is saying this even necessary?

SuggestedRemedy

Remove last sentence of paragraph if its not necessary.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** SC **3.4.1** P **22** L **2** # 61
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Table 104-2 on page 15 should have "(continued)" at the end since its split across 2 pages. Same for Table 104-3 on pg 24, and Table 104-6 on pg 31.

SuggestedRemedy

See comment. I thought FrameMaker fixed this automatically, guess not.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** SC **3.6** P **22** L **46** # 62
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Remove "section" before "104.6".

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** SC **4.3.1** P **26** L **29** # 63
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Remove "section" before "104.4.4".

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** SC **4.4** P **29** L **8** # 64
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Change "consistsof" to "consists of".

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** SC **4.5** P **29** L **44** # 66
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Remove "section" before "104.6".

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** SC **4.6** P **29** L **50** # 65
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Change "shalloperate" to "shall operate".

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **4.6.3** *P* **31** *L* **36** # 67

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

There should be a multiplication operator before the "W" in equation 104-1.

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEz.

Conform to IEEE style guide

Cl **104** *SC* **4.6.3** *P* **31** *L* **42** # 68

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Looks like the variable definitions for equaiton 104-1 is an inserted image, or the font is just wonky. Additionally "W" is not defined.

SuggestedRemedy

Fix font of variable. Add definition for "W".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. NonEz.

Conform to IEEE style guide

Cl **104** *SC* **5.3.1** *P* **32** *L* **54** # 69

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Theres a "1" representing a footnote marker but the footnote text is on the following page.

SuggestedRemedy

Use correct style in FrameMaker to keep footnote at the bottom of the page that the marker resides.

Response *Response Status* **C**

ACCEPT. NonEz.

Use keep with next on the footnote

Cl **104** *SC* **5.3.1** *P* **33** *L* **1** # 71

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Font of Equation 104-2 doesnt seem right.

SuggestedRemedy

Use appropriate font in equation 104-2.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **5.3.1** *P* **33** *L* **12** # 70

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

This paragraph has duplicate text and unnecessary carrage returns in the middle of it.

SuggestedRemedy

Remove "and under all operating conditions" on line 15, and fix the returns.

Response *Response Status* **C**

ACCEPT. NonEz.

Cl **104** *SC* **5.3.1** *P* **33** *L* **13** # 72

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

"Equation 104-1" should be "Equation 104-2".

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** *SC* **6.2** *P* **34** *L* **30** # 73

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

"Figure 104-9" should be "Figure 104-8".

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104** SC **6.3.1** P **35** L **10** # 74
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**
"Figure 104-10" should be "figure 104-9".

SuggestedRemedy
See comment.

Response *Response Status* **C**
ACCEPT. EZ.

Cl **104** SC **6.3.2** P **35** L **39** # 75
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**
"Figure 104-11" should be "Figure 104-10".

SuggestedRemedy
See comment.

Response *Response Status* **C**
ACCEPT. EZ.

Cl **104** SC **6.3.3** P **36** L **12** # 76
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**
"Figure 104-11" should be "Figure 104-10".

SuggestedRemedy
See comment.

Response *Response Status* **C**
ACCEPT. EZ.

Cl **104** SC **6.3.4** P **37** L **16** # 77
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**
Item 8 is missing from Table 104-7

SuggestedRemedy
Renumber Items 9-14 as Items 8-13.

Response *Response Status* **C**
ACCEPT. EZ.

Cl **104** SC **6.4.3** P **38** L **12** # 78
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**
"Figure 104-13" should be "Figure 104-12".

SuggestedRemedy
See comment.

Response *Response Status* **C**
ACCEPT. EZ.

Cl **104** SC **99** P **1** L **22** # 81
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**
The Draft version in the text is D1.1.

SuggestedRemedy
Update to the appropriate draft revision.

Response *Response Status* **C**
ACCEPT. EZ.

Cl **104A** SC **1** P **42** L **35** # 79
Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**
"at short cable length"?

SuggestedRemedy
Change to "a short cable length" or "short cable lengths".

Response *Response Status* **C**
ACCEPT IN PRINCIPLE. NonEZ.

Delete "at short cable length".

Cl **104A** *SC* **2** *P* **42** *L* **41** # 80

Donahue, Curtis UNH-IOL

Comment Type **E** *Comment Status* **A**

Break first paragraph into 2 sentences.

SuggestedRemedy

Change to "RLoop is defined as the sum of the PSE source resistance, RPSE, and link segment round trip resistance. The maximum resistance of the link segment wire pair (per unit length) is given by:".

Response *Response Status* **C**

ACCEPT. EZ.

Cl **104A** *SC* **2** *P* **42** *L* **47** # 93

Donahue, Curtis UNH-IOL

Comment Type **T** *Comment Status* **A**

If "L is 2X the length of the link segment" then why not just have "2L" in the equation?

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT. NonEZ.