

P802.3cg Draft D0.2

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IEEE P802.3cg, Chief Editor

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P802.3cg Editorial Team (2017) - TBD

- Valerie Maguire, Chief Editor
 - Front matter, Clause 1, Definitions
 - Clause 30 Management
 - Clause 45 Management Data Input/Output (MDIO) Interface
 - Clause 78 EEE (TBD)
- George Zimmerman, Editor
 - PHY specification(s), excluding link segments
 - (e.g., Clause 146.x, excluding 146.7)
 - Permanent PHY editor sought – George will continue to assist
- Chris DiMinico, Editor
 - Clause 146.7, Link Segment Characteristics
- Curtis Donahue, Editor
 - PICS
- Jon Lewis, Editor
 - At large

Draft 0.2 Chief Editor's Notes

- Draft 0.2 is offered as a starting point for development of the P802.3cg draft based on the 802.3bp amendment structure
- It is far from complete, and contains content and placeholders for material that may be technically incorrect for this project, but helps focus the development on specific areas of interest
- Draft 0.2 will be posted in the private area to help focus development efforts for the next meeting

P802.3cg Draft D0.2 Structure

- Editor's working draft D0.2 contains typical legacy clause content:
 - Clause 1 with definitions and normative references
 - Clause 30 with management objects
 - Clause 45 with MDIO registers
- Placeholders for existing clauses included:
 - Clause 78 with Energy Efficient Ethernet functionality
 - Clause 98 with single-pair autoneg
- Additional clause(s) included:
 - Clause 146, 10BASE-T1L
 - Clause 147, 10BASE-T1S
 - Clause 148, Multi-drop TBD

Clause Status: 1, 30, 45, 78, and 98

- Significant progress has been made updating clauses 1, 30, 45 to include definitions, abbreviations, normative references, and MDIO management based upon 802.3bp
- Clauses 78, and 98 are placeholders at this time and do not contain any technical material

Clause 45 To-Do

- Auto-negotiation registers
- PICs

Clause Status: 146, 147, and 148

- Clauses 146, 147, and 148 are placeholders at this time and do not contain any technical material
- Clause 146 is PCS and PMA/PMD clause for 10BASE-T1L
- Clause 147 is PCS and PMA/PMD clause for 10BASE-T1S
- Clause 148 is a placeholder for multi-drop if needed

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- Proceed to document review

What do the Editors do?

- Editors' responsibilities:
 - Consolidate all approved baselines into the draft
 - Ensure style and format of the draft is consistent with the official IEEE Style Manual (current version: 2016)
 - Make sure text is grammatically correct
- Editors DO NOT:
 - Create text of draft based on bullets from PowerPoint presentations
 - Fill in missing technical details from baselines (any TBDs from baselines will be included in the draft as well)
 - Rewrite or develop text based on proposals

Working with your Editors

- Refer to Maguire_3cg_01_0917.pdf for editing examples
- Provide Editors with complete baseline materials
 - Editable files in Word or FrameMaker formats shall including all the necessary text, figures, drawings, code, etc.
 - Text formats: Word (.doc(x)), FrameMaker 10 (.fm or .mif)
 - Table data: Excel .xml(x)
 - Drawings / figures: FrameMaker 10 (.fm or .mif) or Visio (.vsd) for simple content copying
- Include all descriptive text
- Ensure that there are no missing technical features or technical conflicts between baselines

Actionable To-Do

- Adopt draft 0.2 and instruct Editor to incorporate agreed up changes to create draft 0.3 (MOTION)
- Incorporate insertion loss, return Loss, ANEXT and AFEXT from slide 10, slide 25, slide 28 and slide 30 respectively in diminico_01_0317.pdf for the 1000 m link segment baseline
- Incorporate slide 9 of Mueller_3cg_02_0517.pdf as the strawman for PHY noise evaluation for the 1000m PHY objective
- Incorporate slides 4 and 5 of Graber_3cg_08a_0517.pdf as a baseline for Modulation and Symbol rate for the 1000m PHY objective
- Incorporate slide 6 of Graber_3cg_08a_0517.pdf as an example Transmitter Test Setup for the 1000m PHY objective

Actionable To-Do, cont.

- Incorporate slide 6 of Graber_3cg_08a_0517.pdf as an example Transmitter Test Setup
- Incorporate a transmitter level specification that includes 2 transmit voltage levels, 2.4Vpp and 1.0Vpp (at the MDI), with +/- 5% tolerances for the 1000m PHY objective
- Incorporate slides 10 and 11 of Graber_3cg_08a_0517.pdf as clock frequency and jitter tolerance for the 1000m PHY objective
- Incorporate slide 12 of Graber_3cg_08a_0517.pdf as test patterns for the up to 1000m PHY objective
- Incorporate a blind link training technique without the need for dedicated training sequences as the link training method for the 1000m PHY objective

Actionable To-Do, cont.

- Incorporate the table of electromagnetic classifications in slide 13 of diminico_01_0517.pdf for the 1000m PHY objective
- Create a normative baseline “Optional Power Distribution annex” (Chris DiMinico)
- Incorporate baseline power requirements for (point-to-point/plug-and-play) powered devices as shown below

Class	Vpse, min V	Ipi, max (A)	Rloop (60C) ohm	Ppd (1000m) W
new 1	20	.102	59	1.4
new 2	20	.155	39	2.2
new 3	50	.255	59	8.9
new 4	50	.388	39	13.6

Actionable To-Do, cont.

- Incorporate baseline optional power distribution annex baseline power requirements for “engineered” power delivery devices given in Table on slide 18 of diminico_02_0517.pdf, with the deletion of “in the daisy chain”
- CONTENT ASSOCIATED WITH THESE BASELINES TO BE PROVIDED TO EDITOR BY **SEPTEMBER 29th**
- Send to: valerie_maguire@siemon.com

Future To-Do

- Develop short reach point-to-point link segment
- Develop short reach PHY content
- Better understand how non-automotive and non-industrial applications affect our objectives

CONTRIBUTIONS NEEDED!

- Draft 0.3 to be posted to private area one week before next 802.3 Plenary meeting

Questions?

Thank you!

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