

# Supporting Material for D2.0 Comments Continued

## IEEE P802.3cw Task Force IEEE 802.3 Oct 2022 Session

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# Foreword

## ■ Regarding 400GBASE-ZR

- **The authors do not feel that there are any issues with the technical proposal / baseline for IEEE P802.3cw**
- **The issue is with its documentation per the IEEE 802.3 approach**

# Initial Comment Summary

This presentation was initially intended to address the following general topics / comments :

General Description	Comment ID	Related Subclause
Delay and Skew Constraints	179, 180, 183, 195	116.4, 116.5
Skew Constraints	98, 99, 193, 317, 498	156.3.2
PCS / PMA Clause	129, 182, 185, 424, 425, 130, 131, 188, 202, 387, 60, 61, 259, 263, 265, 233, 267, 269, 234, 237, 238, 139, 140, 283, 287, 143, 194,	155
PMD Clause	315, 92, 94, 96, 316, 321, 108, 109, 581, 290, 296,	156

While considering these comments the authors began to note inter-related issues between all of the comments.

# “Pulling on the Thread”

- **IEEE 802.3 Aspects to Specifying a PHY**
  - **Partitioning of functions between sublayers**
  - **Service Interfaces and their definitions**
  - **Description of the sublayer functions**
- **Regarding IEEE P802.3cw D2.0**
  - **Partitioning of functions between sublayers –**
    - **Partitioning of 802.3cw functions ok**
    - **An overview needs to be provided**
      - **describing relationship between multiple frame types is needed**
      - **PCS / PMA are currently separate**
  - **Service Interfaces and their definitions**
    - **PMA / PMD lane width not properly defined**
    - **Other Related Issues (e.g. skew, other)**
  - **Description of the sublayer functions**
    - **Scarcity of “SHALL” Statements**
    - **Some functions not fully defined**
    - **Mis-use of PCS lane terminology**

# Partial List of “High-Level” Items Discussed

- PMA Service Interface
- PMD Service Interface
- Relationship of multiple “frames”
- Only a single PCS lane (update skew considerations accordingly)
- There are two PMD lanes (need to add deskew logic ?)
- Use of implementation specific language throughout
- Missing parameter from the primitive from PMA to PCS
- Inconsistent use of accepted terminology / multiple terms to identify same detail
- Skew constraints
- Co-ordination between responses from multiple commenters on the same issues

# Recommendation

- **It is the opinion of the authors that due to the numerous issues related to specifying P802.3cw per the IEEE 802.3 documentation approach, Clause 155 and parts of Clause 156 need restructuring and clarification.**
  
- **Proposal to move forward -**
  1. **All of the comments defined on the following pages (8-14) are candidates to be addressed by a single proposed remedy calling for the restructuring and clarification of Clause 155 and parts of Clause 156 per this presentation**
  2. **Identify “master comment” with response that will be referenced by other comments.**
  3. **Consider all other candidate comments and reference to “master comment” response, as appropriate.**
  
- **Proposed Master comment is #346**
  - **Proposed Remedy**  
**Accept In Principle.**  
**With editorial license, restructure and clarify Clause 155 and 156 as appropriate:**
    - **to identify interoperability requirements using “SHALL” statements, as needed.**
    - **to address issues noted in dambrosia\_3cw\_01\_221018.pdf**
  
- **Comments #444 and #463 should be discussed by Task Force.**

# Clause 155 TR / T / ER Comments

155.1.1	126	Descriptive text of PCS / PMA
155.1.2	181	
155.1.3	128, 129	
155.1.4	42	PCS Lane Rate
155.1.4.2	185, 187	
155.1.5	427, 130	PCS / PMA Functional Diagram
155.2.1	202, 20, 190, 433, 434, 46, 28, 438, 29, 188, 16, 131, 438	PMA Service Interface, FEC Description, PCS Lanes
155.2.4	132, 225	Frames
155.2.4.1	203	Frames / blocks
155.2.4.3	226, 392, 204, 50, 227, 394, 205, 229, 150, 445, 52	Frames / blocks, PCS Payload, GMP Mapping
155.2.4.4	206	GMP Mapping
155.2.4.5	397	ZR frame
155.2.4.5.1	58, 448	GMP, frame
155.2.4.5.2	390, 230, 450, 61, 232, 389, 449, 452	
155.2.4.5.3	62, 453, 57	
155.2.4.5.4	247	
155.2.4.6	248, 249, 454, 455	400GBASE-ZR Frame
155.2.4.7	251, 253, 254, 388	400GBASE-ZR Frame
155.2.4.8	391	



# Clause 155 TR / T / ER Comments

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155.2.4.11	257, 69, 258, 464	
155.2.4.12	259	
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155.2.5.5	70, 401, 408	
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155.3.3.2	238, 239, 240, 215, 216	
155.3.3.3	241, 242, 243, 244, 245, 270, 271	
155.3.3.3.3	82, 272, 273	
155.3.3.4	277, 138	

# Clause 155 TR / T / ER Comments

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155.3.3.5	341, 343, 84	
155.3.3.6	85	
155.3.3.8	87	
155.4.2.1	280, 281, 140, 283, 284, 285, 405, 141, 142, 287, 288, 13, 289, 290, 143, 349, 409	
155.4.2.2	292	
155.4.2.4	286, 14, 295, 296, 217, 297, 298, 299, 300, 301 305, 306, 308	
155.5.1	144, 490, 145 , 406, 407, 147, 312, 194	
155.7.4.1	346	

# Clause 155 "E" Comments not in Bucket

155.1.2	181	
155.1.4	182, 424, 425	
155.1.5	10, 428, 429, 338	
155.2.1	43, 44, 430, 439, 224, 48	
155.2.4.3	440, 49, 228, 443, 446, 51, 53, 54, 55	
155.2.4.4.1	387	
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# Clause 155 "E" Comments not in Bucket

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155.4.2.1	291	
155.4.2.3	293	
155.4.2.4	294, 89, 303, 304, 307	
155.5	488, 310, 311, 489	
155.5.1	33, 491	

# Clause 155 "E" Comments not in Bucket

155.4.2	88	
155.4.2.1	291	
155.4.2.3	293	
155.4.2.4	294, 89, 303, 304, 307,	
155.5	488, 310, 311, 489,	
155.5.1	33, 491,	

# Clause 156 comments

General Description	Comment ID	Related Subclause
Skew Constraints	98, 99, 193, 317, 498	156.3.2
PMD Clause	315, 92, 94, 96, 316, 321, 108, 109, 581, 290, 296,	156