

IEEE 802.3WG

Opening Plenary Report

IEEE 802.3
100 Gb/s Backplane and Copper Cable
Study Group

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San Francisco, CA, USA, July 2011

Request for Formation of Study Group (as per Nov '10 Plenary Motion)

Move the IEEE 802.3 Working Group authorizes the formation of a study group for “100GbE Electrical Backplane and Twinaxial Copper Cable Assemblies.”

Reflector and Web

- To subscribe to the 100GCU reflector, send an email to:

ListServ@ieee.org

with the following in the body of the message (do not include “<>”):

```
subscribe stds-802-3-100GCU <yourfirstname> <yourlastname>  
end
```

- Send 100GCU reflector messages to:

STDS-802-3-100GCU@listserv.ieee.org

- Task Force web page URL:

<http://www.ieee802.org/3/100GCU/index.html>

Study Group Private Area

- URL: <http://www.ieee802.org/3/100GCU/private/index.html>
 - Username: XXXXXX
 - Password: XXXXXXXXX
- Write it down...
- Note - The drafts within are posted for your review only, and neither the drafts nor access information should be copied or redistributed to others in violation of document copyrights.

Activities Since May 2011 Plenary (1 of 2)

- May 24-25
 - Incline Village, NV (Thanks to John McDonough & NEC)
 - <http://www.ieee802.org/3/100GCU/public/may11/index.html>
 - 113 attendees
 - 18 presentations (Thanks to all contributors!)
 - Objectives Presentations
 - Signaling
 - FEC
 - FR-4
 - PAR / 5 Criteria
 - Adopted objectives, PAR responses, 5C responses
 - SG moved to submit project documentation to 802.3WG for approval

Summary of Motions from May 2011 Interim (1 of 3)

- Motion #3 –
 - Adopt the following objective: Support a BER of better than or equal to 10^{-12} at the MAC/PLS service interface.
 - Results: All (y/n/a): 68/0/3
- Motion #4 -
 - Adopt the following objective: Define a 4-lane 100 Gb/s backplane PHY for operation over links consistent with copper traces on “improved FR-4” (as defined by IEEE P802.3ap) or better with lengths up to at least 1m.
 - Results: All (y/n/a): 60/10/15 802.3 (y/n/a): 38/5/1
 - Note: Baseline definition of “improved FR-4” recorded in goergen_01a_0511.pdf, slide 23.
- Motion #5 –
 - Adopt the following objective: Define a 4-lane 100 Gb/s PHY for operation over links consistent with copper twin-axial cables with lengths up to at least 5m
 - Results: All (y/n/a): 75/0/8

Objectives

- Support full-duplex operation only
- Preserve the 802.3 / Ethernet frame format utilizing the 802.3 MAC
- Preserve minimum and maximum FrameSize of current 802.3 standard
- Support a BER of better than or equal to 10^{-12} at the MAC/PLS service interface
- Define a 4-lane 100 Gb/s backplane PHY for operation over links consistent with copper traces on “improved FR-4” (as defined by IEEE P802.3ap) or better with lengths up to at least 1m.
- Define a 4-lane 100 Gb/s PHY for operation over links consistent with copper twin-axial cables with lengths up to at least 5m.

Summary of Motions from May 2011 Interim (2 of 3)

- Motion #6 – Move that the Study Group adopt the Broad Market Potential response in slide 2 of frazier_01a_0511.pdf, Results All (y/n/a) 51/0/3
- Motion #7 – Move that the Study Group adopt the Compatibility response in slide 3 of frazier_01a_0511.pdf, Results All (y/n/a) 64/0/1
- Motion #8 – Move that the Study Group adopt the Distinct Identity response in slide 4 of frazier_01a_0511.pdf, Results All (y/n/a) 62/0/1
- Motion #9 – Move that the Study Group adopt the Technical Feasibility response in slide 5 of frazier_01a_0511.pdf, Results All (y/n/a) 66/0/1
- Motion #10- Move that the Study Group adopt the Economic Feasibility response in slide 6 of frazier_01a_0511.pdf, Results All (y/n/a) 66/0/1

Summary of Motions from May 2011 Interim (3 of 3)

- Motion #11 – Move that the Study Group adopt the PAR Question Responses in par_0511.pdf, Results All (y/n/a) 76/0/0
- Motion #12 - Move that the Study Group:
 - Submit the project documentation to the 802.3 Working Group for approval.
 - Request that the 802.3 Working Group chair pre-submit the PAR and 5 criteria responses to the 802 Executive Committee for consideration at the July 2011 Plenary Session. Should the IEEE 802.3 Working Group not approve the submission at its July 2011 meeting, it will be removed from the IEEE 802 Executive Committee agenda
 - Results All (y/n/a) 74/0/0

Project Documentation

- All submitted documentation pending IEEE 802.3 WG approval:
 - PAR - Submitted PAR –
http://www.ieee802.org/3/100GCU/par_0511.pdf
 - 5 Criteria – Submitted Responses –
http://www.ieee802.org/3/100GCU/5C_0511.pdf
 - Adopted Objectives –
http://www.ieee802.org/3/100GCU/objectives_0511.pdf

Plans for the Week

- No incoming liaisons or communications
- Address comments on the PAR, 5 Criteria, and objectives
- Seek 802.3WG approval of PAR, 5 Criteria, and objectives

Thank You!