

Minutes IEEE 802.3 Gigabit Ethernet Over Plastic Optical Fiber (GEPOF) Study Group

12th/13th May 2014 Sheraton Hotel Norfolk, VA

1. Attendees

The following attended the GEPOF Study Group Meeting on the 12th and 13th May 2014.

Name	Employer/Affiliation
David Chen	Nokia
Ken Eben	Mitsubishi International
Alan Flatman	LAN Technologies
Bob Grow	RMG Consulting/KDPOF
Bernd Horrmeyer	Phoenix Contact
Mike Klempa	UNH-IOL
Shigeru Kobayashi	TE Connectivity
John Lambkin	Firecomms
Arthur Marris	Cadence
Ralph Mason	Microchip
Carlos Pardo	KDPOF
Rubén Pérez-Aranda	KDPOF
Rick Rabinovich	Alcatel-Lucent
Duane Remein	Huawei Technologies
Naoshi Serizawa	Yazaki Corporation
Satoshi Takahashi	POF Promotion
Geoff Thompson	GraCaSi SA
Lawrence Thorne	Firecomms
Yoshihiro Tsukamoto	Mitsubishi Rayon
Paul Vanderlaan	Berk-Tek LLC

2. Appointment of the Study Group Chair

John Lambkin volunteered to act as Recording Secretary for the meeting.

David Law, Chair of the IEEE 802.3 Working Group, took the floor to organize the study group. He had appointed Bob Grow as acting chair of the Chair of the IEEE 802.3 Gigabit Ethernet Over Plastic Optical Fiber (GEPOF) Study Group, and opened the floor for comment on the appointment and any other candidates after asking Mr. Grow to step out of the meeting. Multiple participants spoke on the appointment.

There being no further proposals for candidates Mr David Law placed the following motion before the meeting and requested Mr Bob Grow leave the meeting during the vote.

Motion: Confirm Bob Grow as the IEEE 802.3 1 Gigabit Ethernet Over Plastic Optical Fiber Study Group Chair.

Move: Steve Carlson

Second: Carlos Pardo

Y: 11

N: 0

The motion was deemed to have passed and Bob Grow was confirmed as Chair of the IEEE 802.3 GEPOF Study Group

3. Approval of the Agenda

The group discussed the proposed agenda presented by the Study Group Chair.

Motion: To approve the agenda.

Move: ???

Second: Carlos Pardo

The agenda was approved by unanimous consent.

4. General Information

- The Chair gave an introduction to the procedures, etiquette, Bylaws and Rules governing IEEE Study Group meetings.
- The Chair presented the IEEE policy governing patents
- The Chair explained the process of formulating the Project Authorization Request (PAR), the Criteria for Standards Development (CSO) and specifying the project Objectives.
- The Chair introduced and explained the Attendance Tool
- The Chair explained the criteria for being for being eligible to vote at IEEE Plenary meetings

5. Presentations

All presenter at the meeting gave a short introduction of themselves, and responded to questions on their presentations.

The following presentations were made on Monday 12th May

- Shigeru Kobayashi- Automotive perspective: the floor discussed the need for a BER of 10^{-14} for automotive applications
- Carlos Pardo – Home Networking use cases for POF Links

- Carlos Pardo – Comparison of optical and electrical solutions
- Rubén Pérez-Aranda – Link Budget requirements for GEPOF
- Rubén Pérez-Aranda – Optical Transmitter requirements for GEPOF
- Rubén Pérez-Aranda – Optical Receiver requirements for GEPOF
- Naoshi Serizawa – Automotive GEPOF requirements
- Rubén Pérez-Aranda – POF response and GEPOF Feasibility
- Yashihiro Tsukamoto – POF Technology for cars and home
- John D. Lambkin – Experience and experimental data from EU Project POF_PLUS
- Lawrence Thorne – Market Study observations for GEPOF

The following presentations were made on Tuesday 13th May

- Rubén Pérez-Aranda – Shannon’s capacity analysis for GEPOF

6. IEEE 802.3 GEPOF Study Group Motions

The Chair reiterated the requirements for generating the Project Authorization Request (PAR), the Criteria for Standards Development (CSD) and specifying the project Objectives. After a detailed review of draft Objectives, CSD, and PAR and some modifications to them, the following motions were made. Additional modifications to the draft documents were made during discussion of each motion. The approved documents were to be posted to the study group home page following the meeting.

Motion 1 - Basic objectives motion

Moved to adopt the following objectives for Gigabit Ethernet over Plastic Optical Fiber (POF):

- Preserve the IEEE 802.3/Ethernet frame format utilizing the IEEE 802.3 MAC
- Preserve minimum and maximum frame size of the current IEEE 802.3 standard
- Support full duplex operation only
- Support a data rate of 1000 Mb/s at the MAC/PLS service interface

Moved: C. Pardo

Seconded: L. Thorne

Y: _10_, N: _0_, A: _0_

The motion was deemed to be passed.

Motion 2 - Length objective motion

Moved to adopt the following objectives for Gigabit Ethernet over Plastic Optical Fiber (POF):

- For the automotive environment:
 - Specify operation over at least 15 m of POF with 4 in-line connectors
 - Specify operation over at least 40 m of POF with no in-line connectors
- For the home and industrial environment specify operation over at least 50 m of POF with 1 in-line connector

Moved: C. Pardo

Seconded: J. Lambkin

Y: _10_, N: _0_, A: _0_

The motion was deemed to be passed.

Motion 3 - BER objective motion

Moved to adopt the following objective for Gigabit Ethernet over Plastic Optical Fiber (POF):

- Maintain a bit error ratio (BER) better than or equal to 10^{-12} at the MAC/PLS service interface

Moved: R. Perez-Aranda

Seconded: K. Eben

Y: 10 , N: 0 , A: 0

The motion was deemed to be passed.

Motion 4 – EEE motion

Moved to adopt the following objective for Gigabit Ethernet over Plastic Optical Fiber (POF):

- Specify optional Energy-Efficient Ethernet for 1000 Mb/s over POF

Moved: C. Pardo

Seconded: K. Eben

Y: 9 , N: 0 , A: 1

The motion was deemed to be passed.

Motion 5 - CSD – Managed Objects

Moved to approve the Managed Objects response of the Criteria for Standards Development (CSD) of DraftCSD_GEPOF_2a_0514.

Moved: N. Serizawa

Seconded: J. Lambkin

Y: 10 , N: 0 , A: 0

The motion was deemed to be passed.

Motion 6 - CSD – Broad Market Potential

Moved to approve the Broad Market Potential response of the Criteria for Standards Development (CSD) of DraftCSD_GEPOF_2a_0514.

Moved: K. Eben

Seconded: C. Pardo

Y: 10 , N: 0 , A: 0

The motion was deemed to be passed.

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Motion 7 - CSD – Compatibility

Moved to approve the Compatibility response of the Criteria for Standards Development (CSD) of DraftCSD_GEPOF_2a_0514.

Moved: R. Perez-Aranda

Seconded: N. Serizawa

Y: _9___, N: _0___, A: _0___

The motion was deemed to be passed.

Motion 8 - CSD – Distinct Identity

Moved to approve the Distinct Identity response of the Criteria for Standards Development (CSD) of DraftCSD_GEPOF_2a_0514.

Moved: Y. Tsukamoto

Seconded: R. Perez-Aranda

Y: _10___, N: _0___, A: _0___

The motion was deemed to be passed.

Motion 9 - CSD – Technical Feasibility

Moved to approve the Technical Feasibility response of the Criteria for Standards Development (CSD) of DraftCSD_GEPOF_2a_0514.

Moved: K. Eben

Seconded: C. Pardo

Y: _11___, N: _0___, A: _0___

The motion was deemed to be passed.

Motion 10 - CSD – Economic Feasibility

Moved to approve the Economic Feasibility response of the Criteria for Standards Development (CSD) of DraftCSD_GEPOF_2a_0514.

Moved: J. Lambkin

Seconded: B. Horrmeyer

Y: _11___, N: _0___, A: _0___

The motion was deemed to be passed.

Motion 11 - PAR motion

Moved to approve the 802.3bv Project Authorization Request (PAR), DraftPAR_GEPOF_1a_0514.

Moved: S. Kobayashi

Seconded: J. Lambkin

Y: _11___, N: _0___, A: _0___

The motion was deemed to be passed.

Motion 12 - Submittal motion

Moved to:

- Request the 802.3 Working Group Chair to submit the p802.3bv PAR and CSD to the Executive Committee for consideration at the July IEEE 802 LMSC plenary meeting.
- Request the 802.3 Working Group Chair to pre-submit the p802.3bv PAR to NesCom for consideration at its August meeting.

Moved: L. Thorne

Seconded: J. Lambkin

Y: _11___, N: _0___, A: _0___

The motion was deemed to be passed.

7. Any Other Business

There being no other business the meeting was adjourned.