

# Minutes IEEE 802.3 10SPE SG AdHoc meeting October 19

Prepared by Peter Jones

## Proposed Agenda:

1. Agenda/Admin Peter Jones

## Presentations posted at:

<http://grouper.ieee.org/groups/802/3/10SPE/public/adhoc/index.html>

## Agenda/Admin Peter Jones:

Meeting began at 7:05am PST.

1. Reviewed the Attendance information related to the ad hoc.
2. Displayed pre-par patent slide deck, Asked if we needed to review patent policy.
  - a. No one requested review.
3. Reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes.
4. Asked for approval of 5 October and 10 October minutes?
  - a. Approved without objection.
5. Presented the proposed agenda.
  - a. Approved without objection.

## Presentations/Discussion.

### How Intrinsic Safety affects PHY Design Markus Wucher Endress+Hauser

- Scope: Optional “power” via 2-wire twisted pair cable 15m, 40m, 200m, 1000m”
  - Don’t specify “PoDL” in the objective so that the TF has the freedom to choose the right technology.
- Scope: Optional “Internal or external Termination”
  - IS requires resistors for current limiting - Optional “Internal or external Termination”
- Scope: Support for the objective “Do not preclude working within an Intrinsically Safe device and system as defined in IEC 60079”
  - Adjustable Transmit Voltage
    - IS only out to 200m reach, don’t need to drive 1000m.
    - Some discussion about the level of impact on standard/PHY design (may be minor), but the goal is to cover the background so people are aware of the requirements/implications.
- Things not affecting the PHY
  - Operating temperatures – wide range (-45 to +85 component, -40 to +60 external)– any effect on the project?

- See 802.3bp 97.9.2.1 for an example of referring to external environmental specs.
    - See 67a – EFM – for outside plant informative environmental specs
    -
  - Need to be clear about what is needed to be defined in our standard, what we need to consider/refer to when defining our spec, and what is out of scope.
- Conclusion of PHY-Requirements
  - “Optional Diagnosis Function” – this needs a little more work to figure out what is needed.
    - Need to work backwards from use case/product needs to what has to be in the standard.
    - Need some requirements work to be done for different use cases.
    - What becomes mandatory, optional or out of scope of the standard.
    - Presenters should review what’s in 10GBASE-T (e.g. OperatingSNR, OperatingMargin etc.)
- General
  - Need to drill down into lengths (200m vs 1000m) and powered or not powered.
    - Refer to previous presentations from Stefan Graber.
    - Need to understand the color coding used in diagrams. IS links are shown in blue, ES (increased safety?) in black.
  - More presentations requested and offered to provide education background on IS/ES safety standards, requirements and practices.
    - Need to figure out what needs to be done to satisfy the technical feasibility CSD, vs what is TF work.
    - What has to go in our document to satisfy the “do not preclude” objectives, and bring that information to the groups attention so it can use that as part of TF deliberations.
  - Would like to see references back to previous presentations as appropriate.
  - Need to include the “why” so that we can take the group along with use.
- Question about reliability and multipoint, how do these affect each other. Depends on use case e.g., short range (inside unit, e.g, cabinet) vs long range.
- Need to spec cable characteristics that affect the standard (e.g. loss, resistance, etc.) – we need this for defining the link segment.

### Chair's Comments/Next meeting **George Zimmerman CME**

- Getting close to next meeting, presentation requests due soon.
- Chair to summarize what he sees we need to get done to become a TF.
- As an example, multipoint is still not that well understood.
- Make sure everyone understands what has to be done, and provide one or more examples of how things could be done.

- We need to be clear on what is needed to meet our CSDs, for example, could we meet our CSD with just point to point, and maybe defer multipoint to TF and/or a new project.

Meeting closed – ~8:40 PST

### Attendees (from Webex + emails)

Name	Affiliation	attended 10/19
Bob Voss	Panduit	y
Brett McClellan	Marvell	y
Chad Jones	Cisco	y
Chen, Li-Chung	Realtek	y
Ching-Yao Su	Realtek	y
Claude Gauthier	OmniPHY	y
David Brandt	Rockwell Automation	y
David Hoglund	Johnson Controls	y
David Law	HPE	y
Dayin Xu	Rockwell Automation	y
Dick Caro	CMC Associates	y
George Zimmerman	CME Consulting / Commscope, LTC & Aquantia	y
Helge Zinner	Continental Corp.	y
Jacky Chang	HPE	y
Jean Picard	TI	y
Jeff Marvin	Linear Technology	y
Jens Gottron	Siemens	y
Laura Schweitz	Turck	y
Lennart Yseboodt	Phillips	y
Maris Graube	Relcom Inc.	y
Markus Wucher	Endress+Hauser	y
Masood Shariff	CommScope	y
Matthias Fritsche	HARTING Electronics GmbH	y
Matthias Jaenecke	Yazaki	y
Matthias Wendt	Phillips	y
Mick McCarthy	Analog Devices	y
Oisín Ó Cuanacháin	Analog Devices	y
Peter Jones	Cisco	y
Steffen Grabber	Pepperl+Fuchs	y
Thomas Mueller	Rosenberger	y
Tobias Belitz	Renesas	y
Yong Kim	Broadcom	y
Attendee count		32

