2005 Jan 26

PoE-Plus Study Group

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Dale Wellborn – TI, Dallas
Mark – TI, Dallas
Mark , Power DSine, NY
Et. Al.
Power Intergrations
Linear Tech
Natl Semi
Plus product manufacturers

0845 start of meeting
Agenda
- Introductions
- Appoint Recoding Secretary
- Ground Rules
- IEEE Patent Policy
- IEEE structure, rules and process
- Goals for the meeting
- Web and e-mail and other SG stuff
- Presentations
- Motions

Ground Rules
- Mutual Respect
- All may speak
- All may vote
- O product pitches
- No corporate pitches
- No restrictions on presentations or materials
- No prices
  - No cost in any currency, complexity is OK
- 802.3 rules apply

IEEE-SA Standards Board Bylaws on Patents in Standards, section 6 was read in complete.
Inappropriate Topics for IEEE WG Meetings
- Don't discuss licensing terms or conditions, etc….

IEEE Structure was outlined.
- IEEE
  - IEEE-SA (Standards Association)
    - Standards Board – RevCom & NesCom

IEEE 802 – 802.3 – Task Forces & Study Groups

Study Group does have the objective to come up with a PAR and 5-criteria (802) & objectives (802.3 requirement).

This moves on for approval. And process goes on.

Rules

Bylaws of the IEEE Standards Association:

http://standards.ieee.org/sa

Bylaws of IEEE Standards Association:

http://standards.ieee.org/board/index.htm

In summary:

Follow the "ground rules"

A study group exists to create a PAR, 5 Criteria ad objectives – some research on topic

A study group exists from Plenary to Plenary – become a TF, get extension approval or die

Everything in the structure chart approve the TF – do a good job on bullet 2

A study group does not write a spec or select a solution

Meeting Goals

Learn the ropes

The tools: website, e-mail meetings

The task: PAR, 5 Criteria, Objectives and the IEEE process

Develop some consensus

Set some bounds on the scope

Set some objectives

Lay the ground work for the next meeting

Website and E-mail

Web address

http://www.ieee802.org/3/poep_study/index.html

e-mail – send an e-mail to

listserve@ieee.org

containing the body text

subscribe standards-802-3-poep <yourfirstname> <yourlastname>

next meeting (Atlanta)

http://www.ieee802.org/meeting/index.html

possibly Tue & Wed

Consensus is that we will only do edits to clause 33 and not create a new clause completely.

Mike commented that we should review the presentation that resulted in this group.

Review presentations (in the listed order by file name) located at web site

http://www.ieee802.org/3/poep_study/public/nov04/index.html

Feldman_1_1104.pdf

Request to start with slide page 8 as a starting point for the study group.

Limits for max power can be varied from voltage limits to size of data transformers.

Previous limit based on old equipment capability and voltage limitations.

DiMinico_1_1104.pdf – modified

Any drafts to TIA 568 addendum need to be reviewed – request to get group together to review this.

Some discussion on connector capability in environment and aged conditions.

We need to work within the PHYS for cable current limits. We are not going to be able to write a new cabling spec.

McCormack_2_1104.pdf

Letter received from ISO/IEC JTC 1/SC 25/WG3 Customer premises cabling (Allen discussed)

10BASE-T is sensitive to insertion loss. Letter says cabling can support up to 10 W per pair and thus 40 W for a 4-pair cabling channel. We need to work with this group to allow them to study our proposal if we go higher than 40W. European standard is less than 10 W per pair due to safety and other factors. 72V was based on the connector rating voltage.

Alen Flatman will be the liason for the ISO/IEC group from the 802.3. Any requests for communications will go through the chair first.

TIA SP-4425-AD6-D [Draft 5.0] (TIA/EIA-568-B.1-6)

http://www.ieee802.org/3/private/liaison_docs/index.html

*** username: ****** (strike before publishing)

*** password: ****** (strike before publishing)

Need to have ad-hoc committee to review this document and make comments.

Meeting in this room at 1900 hours to address this.

Presentations

Feldman_1_0105

Market-related Criteria

40W and below potential is 80M units by ’08 (based on several sources)

Firewire established up to 45W

Darshan_1_0105

Economical Feasibility

Cost numbers are relative and actual values are available upon request.

Issues of cost came up when looking at a linear wall-wart compared to a switch-mode wall-wart.

Slide 8 comes into controversy if supplying max power to every port. This slide addresses only the same amount of power, but distributing at different power amounts. This analysis needs to account for the data transformer cost increase.

Austerman_1_0105
Classification of the 802.3 Construction

Demo system has been shown in the lab.

Patoka_1_0105
General Comments

Would like to see current go up and not go to 4 pairs.

Darshan_2_0105
IEEE802.3poep Study Group Technical Aspects

Page 7, option 4 in table will be addressed by the PD providing some signal to the user that the device is plugged into an .af PSE. This was verbally agreed upon at the Call for Interest meeting.

McCormack_1_0105
PoE Effect on Cable Temperature Variance

Actions:

Get a group to review TIA 568 drafts to get consensus of operability into PoEP project.
Derek Koonce to get NASA cable specifications or MIL-STANDARD charts.
Strike username and password from minutes before publishing.
Hank Hinrich present info on magnetic cost increases.
Steve Ellsworth will present on current imbalance.
Yair Darshan will address, in next presentation, average usage compared to capability of the system, and how power management can reduce the cost.
Joe Dupuis – will present data showing 4-pair power insertion at next meeting.
The PoEP will need to ensure some signal is generated by the PD if it is connected into a .af PSE.

Thursday's agenda

PAR
5 Criteria
Objectives