

IEEE 802.3 RTPGE Study Group Minutes  
Minneapolis, 5/15/12 – 5/16/12  
Dave Dwelley, recording secretary

Called to order at 9:00am by David Law

Dave Dwelley is appointed recording secretary

**Steve Carlson is nominated as chair of study group, moved by Geoff Thompson, seconded by Kent Lustig, D. Law spoke in favor, Vote: Y: 33, N: 0, A: 0**

Steve introduced himself, explained badging protocol, reviewed meeting agenda

Attendees introduced themselves

**Vote to approve agenda: approved by voice, no disapprovals**

Call for members of the press: none present

Steve reviewed goals for meeting: PAR, 5 criteria, Objectives, goals for next meeting

Steve reviewed reflector details and policies, ground rules, IEEE structure, bylaws

Steve read “Guidelines for IEEE-SA Meetings” from presentation  
RTPGE\_agenda\_0512.pdf

Geoff Thompson reviewed patent policy in detail, including reading of The Patent Policy

Steve reviewed Standards Process flowchart, study group procedures

Steve reviewed Attendance policy, IMAT login, access code

Steve (standing in for David Law) reviewed PAR form submission details

John D’Ambrosia reviewed the 5 Criteria process (dambrosia\_02\_0512.pdf)

John D’Ambrosia also pitched the Bandwidth Assessment project and tutorial in preparation for a new CFI on higher speeds

Coffee break at 10:39, returned at 10:54

Marek Hajduczenia reviewed Project Objectives (hajduczenia\_01\_0512.pdf)

Thomas Hogenmueller (Bosch) presented “Use Cases and Requirements” (hogenmuller\_01\_0512.pdf) – questions about reach, PoE, domains, connectors,

product lifetimes, number of pairs, wakeup times vs. quiescent current, BER, nature of the spec, video bandwidth, PoE daisy chain

Lunch break 12:15, return 1:35

Stefan Buntz (Daimler) presented “How to Ensure EMC by Measurements” (buntz\_01\_0512.pdf) – questions about global EMC requirements, channel symmetry and termination, coax vs. twisted pair, EMC test correlation, susceptibility vs. emissions

Wael Diab (standing in for Mike Bennett) presented Mike’s EEE presentation (bennett\_diab\_01\_0512.pdf) – questions about changes to EEE if RTPGE defines a new PHY

Mehmet Tazebay (Broadcom) presented “Feasibility Framework for Reduced Twisted Pair Gigabit Ethernet (RTPGE)” (tazebay\_2\_0512.pdf). Chris DiMinico asked how different proposals could be evaluated when the Open Alliance spec is not public. Discussion deferred until after next presentation.

Mehmet presented “Channel Framework for Reduced Twisted Pair Gigabit Ethernet” (tazebay\_1\_0512.pdf). Questions: channel models details, crosstalk issues, nature of automotive wiring harnesses

Break at 3:30, resume 3:45

Chris DiMinico (MC Communications/Leoni) presented “Reduced Twisted Pair Gigabit Ethernet SG Link segments” (diminico\_01\_0512.pdf). Comments: aging of cable will have a significant effect on the channel, must have a standard measureable channel

Benson Huang, Joseph Chou (Realtek) presented “A Feasibility Study of One Twisted Pair Gigabit Ethernet” (huang\_01\_0512.pdf). Questions/comments: does data represent one or two pair systems? Where did example channel model come from? We should consider other sources of noise than just alien XTALK. Assumption of perfect echo cancellation is optimistic. SNR in example calculation may not be adequate.

Meeting adjourned 4:45

5/16/12 Meeting resumed 9:00

Bill Woodruff (standing in for Hassaan Aslam) (Broadcom) presented “Reduced Pair Ethernet – Adjacent Markets” (aslam\_01\_0512.pdf). Questions: is extended reach also an objective? Can we justify project with reduced pair only (perhaps even with reduced reach)? Should we consider two different media options?

Presentation by Ludwig Winkel (Siemens) "Industrial Environment" (winkel\_01\_0512.pdf). Questions: Does this market require full- duplex and PoE, and does this affect the channel requirements? Must we support STP channels (railroad)? Is Auto negotiation required?

Steve: deadlines for presentations will be enforced in future – no late changes unless technical errors found late

Steve: Next steps are to create PAR, 5 Criteria, Objectives – ad-hocs will be created to start this process.

Ad-hoc to generate questions about PoE requirements appointed, chair is Dave Dwelley.

Ad-hoc to develop channel definitions created, chairs are Mehmet Tazebay and Chris DiMinico.

Ad-hocs will create presentations for future meetings, entire group (including non-ad-hoc members) will have opportunities to comment at that time.

PAR ad-hoc created to generate PAR application, Steve Carlson is chair

Steve asked for a volunteer to chair Broad Market ad-hoc – Thomas Hogenmueller volunteered to be chair.

Jeff Thompson commented that 5 Criteria should be carefully considered and not just copied from previous presentations – they will define the work that the group does.

Steve recommended that the ad-hoc groups use the group reflector for communications. Large files should be sent to Steve directly for posting to the website.

Steve asked for a volunteer to organize the objectives; Mehmet volunteered.

Recess at 10:02 to ad hoc groups. Reconvened at 10:33.

Alan Flatman (LAN Technologies) presented "Specifying Environmental Requirements for Cabling Systems & Components with MICE" (ISO/IEC TR 29106) (flatman\_01\_0512.pdf). Questions/comments: There are other industrial automation specs as well that cover similar areas. Who owns spec tables? If RTPGE wanted to add to MICE, who would they contact (Answer: Alan)? Temp and vibration specs even in M3 are too low.

Recess back to ad-hocs at 10:45.  
Reconvened at 3:00.

Steve volunteered to complete the compatibility and unique identity aspects of the 5 criteria and the objectives as part of his PAR adhoc.

Wael Diab has volunteered to chair an EEE adhoc for RTPGE.

Mahmet and Chris's channel adhoc will also handle technical and market feasibility.

Steve proposed two objectives for group approval:

1. Preserve the 802.3/Ethernet frame format utilizing the 802.3 MAC
2. Preserve minimum and maximum frame size of the current 802.3 standard

Motion to approve the above, moved by George Zimmerman, seconded by Mehmet Tazebay, Y:29, N:0, A:1 Technical >75%, motion passes.

Adhoc reports:

Dave Dwelley reported the PoE adhoc generated a list of questions that will be forwarded to the reflector for further comments.

Chris DiMinico reported the channel adhoc met and discussed strategy.

Mehmet Tazebay reported that the objective adhoc will meet after the meeting.

Thomas Hogenmueller reported that the Market potential adhoc met and reviewed the Bosch presentation to the committee. The group will generate a customer database and forward it to the reflector.

Motion to adjourn, by Dave Dwelley, seconded by Mario Traeber, passed by acclimation

Adjourned at 3:12

List of attendees attached

Wed.  
Attendance  
Please Initial.

RTPGE Study Group Sign-In Sheet - Tuesday - 15 May

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WEDNESDAY  
ATTENDANCE  
PLEASE  
INITIAL

RTPGE Study Group Sign-In Sheet - Tuesday - 15 May

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