

# ***802.3 NGEABT Enterprise Noise and Use Case Analysis ad hoc***

## ***Unapproved Meeting Minutes***

January 28, 2015

### **I. Call to order**

German Feyh called to order the first meeting of the “802.3 NGEABT Enterprise Noise and Use Case Analysis ad hoc” at 10:35am MST on January 28, 2015.

### **II. Roll call**

The roll call was by e-mail and webex participant list. The following persons were in attendance:

Brett McClellan, Marvell

Brian Buckmeier, Belfuse INC

Bryan Moffitt, Commscope

Clark Carty, Cisco Systems

Dave Hess, Cord Data

David Law, HP

Dieter Schicketanz, University of Science, Reutlingen

George Zimmerman, CME Consulting, Aquantia, Commscope

German Feyh, Broadcom

Hossein Sederat, Aquantia

Jim Bauer, Marvell

Larry Cohen, Aquantia

Martin Rossbach, Nexans Cabling Solutions

Masood Shariff, Commscope

Paul Vanderlaan, Nexans

Peter Wu, Marvell

Ramin Farjad, Aquantia

Ramin Shirani, Aquantia

Ron Tellas, Panduit

Steve Sedio, Foxconn

Thuyen Dinh, Pulse Electronics

Tom Souvignier, Broadcom

### **III. Housekeeping**

This was our first meeting; there were no minutes to approve.

Participants were asked to register their attendance by email.

Participants were reminded of the IEEE's patent policy.

Reviewed & approved agenda.

Reviewed e-mail server and presentation locations.

Reviewed charter.

### **IV. Contributions**

- a) Test setup proposal and issues for measuring noise on cabling, Bryan Moffitt – Commscope
- b) Enterprise Noise Measurement Test Setup, Ramin Farjad, Larry Cohen – Aquantia

Suggestions from the participants:

- a) The work should be conducted using long cables CAT5E and CAT6. "Long" I understood as in excess of 30m.
- b) Far end termination will not make much difference in the measurements, if long cables are used.
- c) The measured common mode voltages are expected to be 10X the differential mode voltages. This may create difficulties, when measuring without a Balun using an oscilloscope input for each wire of the TWP. On the other hand, Baluns introduce additional insertion loss, as well as a HPF and a LPF. A Balun BW of 1-500MHz was deemed sufficient for the work.

- d) Low trigger on the scope and post processing of the waveforms was proposed.
- e) Impulse noise may be dependent on the time of day and the day of the week. To document this variability, measurement periods in excess of 10's of minutes were proposed.
- f) Power over ethernet may add additional noise. George Zimmerman committed to contact the POE group.
- g) A Fluke meter type characterization of the measured cables puts impulse noise measurements into the correct perspective.
- h) The IEC 61000 4-x series may hold nuggets of wisdom for a standardized treatment of impulse noise.

## **V. Adjournment**

German Feyh adjourned the meeting at Noon, MST.

Minutes submitted by: German Feyh

Minutes approved by: [Name]