#### 802.3bn Link Ad Hoc

Meeting Notes & Baseline

# Agenda, Notes -10/4/12

- IEEE Patent Policy Reviewed Agreed and no known patents
- Attendance Taken See Attendance slide
- Possible Dates/Times for this meeting Doodle Poll will be sent out
- Overview see slides for latest
- Link Topics see slides for latest
- Parameters & Status Indicators
- Evaluation Criteria

## **PATENTS**

#### Instructions for the WG Chair

# The IEEE-SA strongly recommends that at each WG meeting the chair or a designee:

- Show slides #1 through #4 of this presentation
- Advise the WG attendees that:
  - The IEEE's patent policy is described in Clause 6 of the IEEE-SA Standards Board Bylaws;
  - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
  - There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- Instruct the WG Secretary to record in the minutes of the relevant WG meeting:
  - That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
  - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard
  - Any responses that were given, specifically the patent claim(s)/patent application claim(s)
    and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any)
    and by whom.
- The WG Chair shall ensure that a request is made to any identified holders of potential essential patent claim(s) to complete and submit a Letter of Assurance.
- It is recommended that the WG chair review the guidance in IEEE-SA Standards Board Operations
   Manual 6.3.5 and in FAQs 12 and 12a on inclusion of potential Essential Patent Claims by
   incorporation or by reference.

Note: WG includes Working Groups, Task Groups, and other standards-developing committees with a PAR approved by the IEEE-SA Standards Board.



#### Participants, Patents, and Duty to Inform

All participants in this meeting have certain obligations under the IEEE-SA Patent Policy.

- Participants [Note: Quoted text excerpted from IEEE-SA Standards Board Bylaws subclause 6.2]:
  - "Shall inform the IEEE (or cause the IEEE to be informed)" of the identity of each "holder of any potential Essential Patent Claims of which they are personally aware" if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
    - "Personal awareness" means that the participant "is personally aware that the holder may have a potential Essential Patent Claim," even if the participant is not personally aware of the specific patents or patent claims
  - "Should inform the IEEE (or cause the IEEE to be informed)" of the identity of "any other holders of such potential Essential Patent Claims" (that is, third parties that are not affiliated with the participant, with the participant's employer, or with anyone else that the participant is from or otherwise represents)
- The above does not apply if the patent claim is already the subject of an Accepted Letter of Assurance that applies to the proposed standard(s) under consideration by this group
- Early identification of holders of potential Essential Patent Claims is strongly encouraged
- No duty to perform a patent search



### Patent Related Links

All participants should be familiar with their obligations under the IEEE-SA Policies & Procedures for standards development.

Patent Policy is stated in these sources:

**IEEE-SA Standards Boards Bylaws** 

http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6

IEEE-SA Standards Board Operations Manual

http://standards.ieee.org/develop/policies/opman/sect6.html#6.3

Material about the patent policy is available at

http://standards.ieee.org/about/sasb/patcom/materials.html

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit http://standards.ieee.org/about/sasb/patcom/index.html

This slide set is available at https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.ppt



# Call for Potentially Essential Patents

- If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance:
  - Either speak up now or
  - Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible or
  - Cause an LOA to be submitted



#### Other Guidelines for IEEE WG Meetings

- All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
  - Don't discuss the interpretation, validity, or essentiality of patents/patent claims.
  - Don't discuss specific license rates, terms, or conditions.
    - Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.
      - Technical considerations remain primary focus
  - Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.
  - Don't discuss the status or substance of ongoing or threatened litigation.
  - Don't be silent if inappropriate topics are discussed ... do formally object.

See IEEE-SA Standards Board Operations Manual, clause 5.3.10 and "Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy" for more details.



#### **ATTENDEES**

# Attendance – 10/4/12 Conf Call

- Ed Boyd, Broadcom
- Avi Kliger, Broadcom
- Bill Powell, Alcatel-Lucent
- Charley Moore
- David Barr, Entropic
- David Law, HP
- Duane Remein, Huawei
- George Hart, Rogers
- Hal Roberts, Calix
- Victor Blake
- Marek Hajduczenia, ZTE
- Mark Laubach, Broadcom
- Nicola Varanese, Qualcomm

- Patrick Stupar
- Tom Staniec
- Kevin Noll, TWC
- Lup Ng, Cortina
- Rick Li, Cortina

#### **OVERVIEW & TOPICS**

#### Overview

#### Objective

- Define the process for the CMC PHY to connect to CNU PHY before the MAC is enabled.
- Define any re-negotiation or PHY parameter procedure.
- Define the PHY parameters to be configured over MDIO & Auto-Negotiation
- What happens after CMC & CNU power up?
- What parameters are PHY? (others are MAC)

#### Output of the Ad Hoc

- Baseline proposal
  - A single agreed solution is best.
  - Two or more options with pros and cons is the other option.
- Joint Presentation for next meeting

# **Link Topics**

- Link Transport Methods
  - Upstream
  - Downstream
  - e.g. Time Inserted or Frequency Inserted, or other
  - Protocol
- Auto-negotiation-Link state machine
  - Finding the Downstream
  - Speeding up the process
  - Initial Upstream
- Message Format & Addressing
  - e.g. Address + Register Pages
- Protocol
  - Dynamic or Static: Master or Slave, who makes change
  - e.g. Echo Protocol
- Parameters and Status Indicators

# Parameters & Status Indicators

- Sub-Carrier Location (Downstream)
- Sub-Carrier Modulation Order (Downstream)
- Sub-Carrier Location (Upstream)
- Sub-Carrier Modulation Order (Upstream)
- Transmit Power Level
- Transmit Offset

## **Evaluation Criteria**

- Link establishment time. First and other
- Simplicity
- Must work all of the time