**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
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| Re: |  | |
| Abstract | Meeting notes on the 802.15 IG THz March 2013 Plenary meeting | |
| Purpose | Meeting Minutes | |
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**Minutes of the March 2013 THz IG**

The THz IG meeting took place on 19 and 20 March 2013 in the Time slots Tuesday PM1+PM2 and Wednesday PM1+PM2.

Meeting was called to order at 1:30 pm on 19 March 2013. The patents statement was mentioned and no patent contributions were discussed. The November 2012 meeting notes were approved.

Call for contributions/Changes of the agenda or for any other business, no discussions followed.

5 contributions were presented:

**Contribution #1 :** Thomas Kürner, TU Braunschweig (Germany), “Launching a Study Group on THz”; (Document 15-13-0130-00-0thz)

This documents follows the discussions at the previous IEEE 802 plenary's on spinning off a Study Group on THz Communications. To start this process a proposal is made to focus first on the application of THz Communications at wireless data centers. The documents concludes with a proposal for a roadmap on creating a study group.

Based on the discussion following the presentation of contribution 1, a revision of the document has been produced (13/130r1), which was presented to the 801.15 SC WNG on Wednesday AM2.

**Contribution #2 :** Hiroyo Ogawa, ARIB, (Japan), “Optical interconnection of data center”; (Document 15-13-0181-02-0thz)

The data rate of optical interconnection known as InfiniBand are presented as information for future terahertz communication systems.

**Contribution #3 :** Sebastian Priebe, TU Braunschweig (Germany) ,“MAC Layer Concepts for THz Communications”; (Document 15-13-0119-00-0thz)

Wireless THz radio networks will, alike any other digital data transmission system, need an appropriate Medium Access Control protocol definition, which has not been subject to any discussions in the Interest Group THz yet. Hence, this document identifies the basic requirements for a THz MAC layer to be fulfilled. Those requirements differ significantly from conventional wireless data communications systems and depend highly on the use cases of THz radio, as is illustrated. Moreover, the document addresses the potential reuse of established MAC protocol definitions forTHz communications and names required amendments, where applicable.

**Contribution #4 :** John d’ Ambrosia, Dell (USA), “Introduction: Industry Connections in IEEE 802”; (Document **15-13-0146-00-0thz**)

Information of the IG THz on the Industry Connection.

**Contribution #5 :** Michael Grigat , Deutsche Telekom (Germany), “Propagation Aspects of Terahertz Outdoor Fixed Wireless Links”; (Document **15-13-0175-01-0thz**)

Based on previous presented Link Budget Analysis for Terahertz Fixed Wireless Links (15-12-0582) some additional link aspects for Terahertz Fixed Wireless Links are further discussed, addressing the influence of fog and rain and impairments of pole twist and sway effects for high gain antenna links.

Furthermore three rounds of discussions have been made targeting:

1. **Feedback from the presentation of (13/130r1) to SC WNG:**

The only discussion after the presentation was on the comparison of THz communications with FSO. A broader scope of the PAR should include also FSO as a potential solution.

1. **Discussion on the TED (11/745r7)**: The content of the TED has been updated based on the contributions made in the meeting.
2. **Discussion on spinning-off a Study Group on „ Beam switchable wireless point-to-point 40/100 Gbps links”**

* Several possibilities to increase interest from industry have been discussed. Going through Industry Connection may not help on short-term. But initiating an IC activity may be of interest for the future.
* The following steps and APs to be completed until the Genenva Plenary have been agreed:
* Direct approach of potential users for a presentation at Geneva or a at least in a Telco before the Geneva Meeting (based on the list of authors of papers on this topic, e. g.)
* For the data center application it might be helpful to set up a link with 802.3. It is likely that in 802.3 representatives from potential end users are participating there.
* for the Geneva meeting a preparation of a more detailed presentation on wireless data centers
* At Geneva the status will be revised in order to decide whether a motion towards a Study Group should be made.

The meeting was adjourned on 20 March at 5.2 pm.

**Attendees:**

Thomas Kürner, TU Braunschweig

Katsuhiro Aijto, NTT Corp.

Shoichi Kitazawa, ATR Wave Engineering Labs

Rick Roberts, Intel

Nobuhiko Shibagaki, Hitachi

Norihiko Sekine, NICT

Michael Grigat, Deutsche Telekom

Ralf-Peter Braun, Deutsche Telekom

Sebastian Priebe, TU Braunschweig

Makoto Yaita, NTT, Microsystem Integration Labs.

Kazu Takahashi, Panasonic

Hiroyo Ogawa, ARIB

Valentine Atkens, Western Digital

André Bourdoux, IMEC

John d’Ambrosia, Dell

Michael Sim, Panasonic

Shu Kato, Tohoku University