IEEE P802.15
Wireless Specialty Networks

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| IEEE 802.15.13 September, 2019 Interim Meeting Minutes for Hanoi |
| Date: 2019-11-09 |
| Author: |
| Name | Affiliation | Address | Phone | Email |
| Sang-Kyu Lim | ETRI |  |  | sklim@etri.re.kr |
| Tuncer Baykas | Mediopol University |  |  | tbaykas@ieee.org |
| Volker Jungnickel | Fraunhofer HHI |  |  | volker.jungnickel@hhi.fraunhofer.de |

Abstract

# This document contains the TG13 Multi-Gigabit/s Optical Wireless Communications Meeting minutes from the September 2019 meeting in Hanoi.

**Monday, Sept 16, 2019, PM2**

Attendance:

* Volker Jungnickel (Fraunhofer HHI)
* Kai Lennert Bober (Fraunhofer HHI)
* Sang-Kyu Lim (ETRI)
* Vinayagam Mariappan (SNUST)
* Tuncer Baykas (Mediopol University)
1. The Chair Volker Jungnickel (Fraunhofer HHI) called the meeting to order. He gave a short overview on TG13 activities, IEEE rules, the way to get the voting right, etc..
2. The Chair presented the agenda doc. 15-19-0398-00-0013 and read the IP and patent policy.
3. The Chair briefly introduced the schedule of TG13 this week.
4. The Chair informed TG13 that Chong Han has resigned to serve as Technical Editor because of maternity leave starting after the November meeting. Kai Lennert Bober (Fraunhofer HHI) volunteered as new Technical Editor. It was discussed to exchange the source files for creating the draft between the old and new Technical Editor through a save account provided by HHI.
5. TG13 **Motion** #55 to approve Kai Lennert Bober (Fraunhofer HHI) as new Technical Editor.

Moved by Nikola

Seconded by Sang-Kyu

Approved by unanimous consent. Motion passes.

1. TG 13 **Motion** #56 to approve the agenda for the week in document 15-19-0398-01-0013.

Moved by Nikola
Seconded by Tuncer

Approved by unanimous consent MOTION PASSES

1. The meeting minutes for the meeting in Vancouver were presented in doc. 15-19-0363-01-0013.
2. TG13 **Motion** #57 to approve the meeting minutes from January 15-19-0363-01-0013.

Moved by Nikola
Seconded by Sang-Kyu

Approved by unanimous consent MOTION PASSES

1. The meeting minutes for the telcos between Vienna and Hanoi meetings were presented in doc. 15-19/0400r0.
2. TG13 **Motion** #58 to approve the telco meeting minutes between Vienna and Hanoi meetings in doc. 15-19/0400r0.

Moved by Tuncer

Seconded by Nikola

Approved by unanimous consent. MOTION PASSES.

1. The group started to discuss the remaining To-Do-List in TG13 draft D6.0. They were collected in doc.15-19/0390r2 which was updated by the group and also removing the already completed tasks. In this session, following remaining TBDs were identified:

Clause 1-3: Editorial

Clause 4:

* MIMO at the device side (also to be worked into Clauses 5, 6, 7)
* Full duplex (also to be worked into Clauses 5, 6, 7)

Clause 5:

* BAT request to include block size in HB PHY
* Rank request to be defined for MIMO
* Add 5.9 for MIMO

Clause 6:

* Advanced modulation control element (Tuncer)
* Support for devices with multiple optical frontends (Tuncer)
* GTS request element (Lennert, needs some calculations)

Clause 7

* Discuss capabilities and which are mandatory/optional

Clause 9

* PHY constants
* PHY PIB attributes
* OFE capabilities
* Table stating *MaxPSDUSize* for each PHY

All PHYs

* Create table for index of MCS
* What is mandatory, what optional
* Turnaround times for short control packets (shortest block length, lowest MCS in payload)
* MIMO-RS index mapping table
* Check numbering of octets and bits in the header again

Clause 10 (PM PHY):

* See all PHYs

Clause 11 (LB PHY)

* See all PHYs

Clause 12 :

* See all PHYs
* What masking of subcarriers is used for LC
* TBDs in first table (subcarriers/upshifts from G.hn2)
* Contact ITU-T
	+ to reserve one frame type for 802.15.13 MAC
	+ use text and figures for 802.15.13 🡪 send liaison letter from 802.15

The overall procedure is to clean document from all previous changes. Then discuss technical items in the list and make changes, accordingly. After all changes are done, the document is closed.

The meeting recessed.

**Tuesday, Sept 17, 2019, AM1**

Attendance:

* Volker Jungnickel (Fraunhofer HHI)
* Kai Lennert Bober (Fraunhofer HHI)
* Sang-Kyu Lim (ETRI)
* Vinayagam Mariappan (SNUST)
* Tuncer Baykas (Mediopol University)
1. The Chair Volker Jungnickel (Fraunhofer HHI) called the meeting to order
2. The Chair presented the agenda "TG13 Meeting Slides for Hanoi" in doc. 15-19/398r02
3. Kai Lennert Bober (Fraunhofer HHI) presented "Text update for PM-PHY" 15-19/415r0.

C: Cross-correlation between preambles will be checked

C: Preambles should be checked

C: Preamble encodes Header, Header encodes payload

C: Instead of Repetition, HCM could be used.

C: Header repetitions should be checked

C: PHY Header can show up to 4 octets as spatial vectors

C: MCS Vector field is discussed

C: Precoder can be used for adaptive MIMO

C: Implementation should be considered

C: Group discussed MIMO RS

C: Group discussed payload table

C: Group discussed MCS ID in 10.4.3

Meeting recessed.

**Tuesday, Sept 17, 2019, AM2**

Attendance:

* Volker Jungnickel (Fraunhofer HHI)
* Kai Lennert Bober (Fraunhofer HHI)
* Sang-Kyu Lim (ETRI)
* Vinayagam Mariappan (SNUST)
* Tuncer Baykas (Mediopol University)
1. The Vice Chair San-Kyu Lim (ETRI) called the meeting to order.
2. Tuncer Baykas (Vestel) presented Text for Adaptive MIMO Communication in doc. 15-19/414r0.

C: Group discussed each PHY's ability for MIMO communication

C: LB PHY supports MIMO

C: HB PHY supports MISO

C: PM PHY can go to 4 streams

C: Tuncer will work on LB PHY first then it will be expanded on other PHYs

1. Sang-Kyu presented "TG13 To-Do-List " 15-19/390r02.

C: MCS table is discussed

C: Group discussed IFS requirement

C: Group discussed turnout time

C: MIMO-RS is discussed

C: Device capabilities should be shared

1. Meeting was recessed.

**Wednesday, Sept 18, 2019, PM1**

Attendance:

* Volker Jungnickel (Fraunhofer HHI)
* Kai Lennert Bober (Fraunhofer HHI)
* Sang-Kyu Lim (ETRI)
* Vinayagam Mariappan (SNUST)
* Tuncer Baykas (Mediopol University)
1. The Chair Volker Jungnickel (Fraunhofer HHI) called the meeting to order.
2. The Chair presented "TG13 Meeting Slides for Hanoi" 15-19/398r02.
3. The Chair explained that The WG Technical Editor didn't response to the question of checking the document. The group apparently cannot start the letter ballot without the approval from the Technical Editor of the WG.
4. The Chair presented "Proposed Liasion from 802.15 WG to ITU-T Q18/5" 15-19/422r0.

C: G.9964 is not in the list, so it should be removed from the abstract.

C: Revision 1 will be prepared

1. TG13 **Motion** #59

Move to request from 802.15 WG to send out copyright request from ITU-T in doc. 15-19/0422r1 „Proposed Liaison from IEEE 802.15 Working Group to ITU-T Q18/15”.

Moved by Harry Bims

Seconded by Sang Kyu Motion passed with unanimous consent.

1. The group had a short discussion about the coexistence assurance document. As this point was also included in the To-Do-List, it was postponed.
2. The group started to work on the draft document focusing on PM PHY. The group discussed MCS IDs.
3. The meeting recessed.

**Thursday, Sept 19, 2019, PM1**

Attendance:

* Volker Jungnickel (Fraunhofer HHI)
* Kai Lennert Bober (Fraunhofer HHI)
* Sang-Kyu Lim (ETRI)
* Tuncer Baykas (Mediopol University)
* Nikola Serafimovski (pureLiFi)
* Vinayagam Mariappan (SNUST)
1. The Chair, Volker Jungnickel (Fraunhofer HHI), called the meeting to order and asked for attendance check.
2. The Chair opened the agenda doc. 15-19-0398-02-0013 and he updated the agenda document while summarizing the activities this week.
3. The group discussed the schedule after July Plenary Meeting and the plan for finalizing the work in TG13.
* **September Interim** Request copyright from ITU-T and work on TBDs
* **September to Nov.** Create D7.0, send to WG TE review, submit comments
* **November Plenary** Comment resolution, create D8.0, start WGLB
* **Nov. to January** Create comments
* **January Interim** Resolve comments, create D9.0 start recirculation
* **March Plenary** Submit draft to SALB
1. The plans until September were discussed.
* Create new draft D6.0 and send it for informal review by TG13 and James Gilb.

* Continue working on TBDs, create new text blocks
1. The plans for the September Interim meeting were discussed.
* Create D7.0, send it for internal WG Editors review
* Submit comments
1. The Chair updated the Suggested Timeline document, and then he uploaded the doc. 15-17/0288r9 to the document server.
2. Lennert reviewed the new documents which was created to replace the old texts in D5.0, and the new documents have been uploaded. The Chair and Lennert created the comment resolution sheet, which is doc. 15-19/0323r0 in order to officially replace the old texts in D5.0 with the new documents.
3. TG13 **Motion** #60

Include the highlighted text in doc. 15-19/0414r4 into draft D7.0.

Moved by Tuncer

Seconded by Nikola

Y / N / A = 3 / 0 / 0 Motion passed.

1. TG13 **Motion** #61

TG13 Telcos are scheduled on

* + Oct 8 10:00-11:00 EST on PHYs
	+ Oct. 29 10:00-11:00 EST on TBD

Moved by Nikola

Seconded by Tuncer Motion passed unanimously.

1. The Chair discussed the plan for the November meeting
* Comment resolution for D7.0,
* Create D8.0
* Start WGLB
1. TG14 **Motion** #62

Instruct the Technical Editor to include the content of doc. 15-19/0415r3 as new PM PHY and implement the instructions in doc. 15-19/452r1 in the new TG13 draft D7.0. The Technical Editor is granted the right to correct the section, figure and table numbering and make editorial changes.

Moved by Tuncer

Seconded by Sang-Kyu

Y / N / A = 2 / 0 / 0 Motion passed.

1. The Chair asked for any other business. There was none.
2. The meeting adjourned.