IEEE P802.11
Wireless LANs

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| Minutes 802.11 bn PHY ad hoc – September to October Conference calls  |
| Date: 2024-09-23 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Dongguk Lim | LG Electronics |  |  | Dongguk.lim@lge.com |

Abstract

This document contains the PHY ad hoc meeting minutes for TGbn teleconferences held between September and October 2024:

* September 23, 2024
* October 17, 2024

## Tuesday September 23th, 2024 19:00 – 21:00 ET

**Introduction**

1. The Chair (Tianyu, Apple) calls the meeting to order at 19:00pm ET.
2. The Chair follows the agenda in 11-24/1643r2.
3. The Chair goes through the IPR policy and asks if anyone is aware of any potentially essential patents. **Nobody speaks up.**
4. The Chair goes through the Copyright policy.
5. The Chair reminds everyone to report their attendance by using IMAT system and by sending an e-mail to the Co-chair, Dongguk Lim (LGE), Sigurd Schelstraete (MaxLinear) or the Chair himself if unable to record attendance via IMAT system.
6. Discussions on the agenda.
	* [24/0067](https://mentor.ieee.org/802.11/dcn/24/11-24-0067-02-00bn-range-expansion-via-repeated-transmission.pptx) Range Expansion via Repeated Transmission Nima Namvar
	* ~~24/1071 LPI PPDU Puncturing Pelin Salem~~
	* [~~24/1443~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1443-03-00bn-dpwifi-reva.pptx) ~~DPWiFi RevA Carlos Rios~~
	* [~~24/1487~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1487-00-00bn-ldpc-and-framing-settings-for-ultra-high-reliability.pptx) ~~LDPC and Framing Settings for Ultra High Reliability Rainer Strobel~~
	* [24/1555](https://mentor.ieee.org/802.11/dcn/24/11-24-1555-01-00bn-thought-on-pap-transmission-in-joint-transmission.pptx) Thought on PAP Transmission in Joint Transmission Kazunobu Serizawa
	* [~~24/1470~~](https://mentor.ieee.org/802.11/dcn/24/11-24-1470-00-00bn-proposal-for-dru-tone-pan.pptx) ~~Proposal for DRU Tone Plan Eunsung Park~~
	* [24/1493](https://mentor.ieee.org/802.11/dcn/24/11-24-1493-01-00bn-tone-plan-shift-value-design.pptx) Tone Plan Shift Value Design Bo Gong
	* [24/1480](https://mentor.ieee.org/802.11/dcn/24/11-24-1480-00-00bn-uhr-ltf-for-dru.pptx) UHR-LTF for DRU Sigurd Schelstraete
	* [24/1552](https://mentor.ieee.org/802.11/dcn/24/11-24-1552-00-00bn-uhr-ltf-design-for-dru-further-results.pptx) UHR-LTF Design for DRU - Further Results Mahmoud Kamel
	* [24/1567](https://mentor.ieee.org/802.11/dcn/24/11-24-1567-00-00bn-ltf-design-for-dru.pptx) LTF Design for DRU Ron Porat

**Attendance**

The following people registered their attendance through IMAT:

            Timestamp                                Name                                        Affiliation

TGbn (PHY)  09/23/2024                         Zhao, Xuwen                                                TCL
TGbn (PHY)  09/23/2024                          Zhang, Yan                                         Apple Inc.
TGbn (PHY)  09/23/2024                        Yano, Kazuto  Advanced Telecommunications Research Institute...
TGbn (PHY)  09/23/2024                          Yan, Aiguo                                SAMSUNG ELECTRONICS
TGbn (PHY)  09/23/2024                       Yamada, Ryota                                  SHARP CORPORATION
TGbn (PHY)  09/23/2024                          Wu, Zidong  Guangdong OPPO Mobile Telecommunications Corp....
TGbn (PHY)  09/23/2024                           Wu, Kanke                                         Apple Inc.
TGbn (PHY)  09/23/2024                           Wei, Dong  Guangdong OPPO Mobile Telecommunications Corp....
TGbn (PHY)  09/23/2024                          Wang, Ying                                 InterDigital, Inc.
TGbn (PHY)  09/23/2024                   Varshney, Prabodh                                              Nokia
TGbn (PHY)  09/23/2024                             Sun, Bo                     Sanechips Technology Co., Ltd.
TGbn (PHY)  09/23/2024                      SUH, JUNG HOON  Huawei Technologies Canada; Huawei Technologie...
TGbn (PHY)  09/23/2024                        Shilo, Shimi                       Huawei Technologies Co., Ltd
TGbn (PHY)  09/23/2024                  Serizawa, Kazunobu  Advanced Telecommunications Research Institute...
TGbn (PHY)  09/23/2024                       Norouzi, Sara  Huawei Technologies Canada; Huawei Technologie...
TGbn (PHY)  09/23/2024                        Namvar, Nima                             Charter Communications
TGbn (PHY)  09/23/2024                      Montreuil, Leo                               Broadcom Corporation
TGbn (PHY)  09/23/2024  Mohamed Hassan Salem, Nedime Pelin                                Cisco Systems, Inc.
TGbn (PHY)  09/23/2024                       Lim, Dong Guk                                     LG ELECTRONICS
TGbn (PHY)  09/23/2024                            Li, Yapu  Guangdong OPPO Mobile Telecommunications Corp....
TGbn (PHY)  09/23/2024                         Li, Jialing                         Qualcomm Technologies, Inc
TGbn (PHY)  09/23/2024                         Kim, Youhan                        Qualcomm Technologies, Inc.
TGbn (PHY)  09/23/2024                      Kamel, Mahmoud                                  Interdigital Inc.
TGbn (PHY)  09/23/2024                       feng, Shuling                                      MediaTek Inc.
TGbn (PHY)  09/23/2024                         Cho, Hangyu                                     LG ELECTRONICS
TGbn (PHY)  09/23/2024                         Bai, Jiyang                                                TCL
TGbn (PHY)  09/23/2024                        Asai, Yusuke   Nippon Telegraph and Telephone Corporation (NTT)
TGbn (PHY)  09/23/2024                      Sahyoun, Walaa                       Canon Research Centre France
TGbn (PHY)  09/23/2024                           Zhong, Ke                           Ruijie Networks Co.,Ltd.

TGbn (PHY)  09/23/2024                           Zhou, Lei                      H3C Technologies Co., Limited

**Technical contributions**

1. **24/0067 Range Expansion via Repeated Transmission Nima Namvar (Charter Communications)**

Discussions:

C: If you have an MLO flag, do you still need to do those masking?

A: If the device supports MLO, this flag ignores a lot of other details but, by this, we can improve the flexibility for the transmitter to choose it wants to replicate.

1. **24/1555 Thought on PAP Transmission in Joint Transmission Kazunobu Serizawa (ATR)**

Discussions: **No discussion**.

1. **24/1493 Tone Plan Shift Value Design Bo Gong (Huawei)**

Discussions:

C: I agreed with your tone shift value and I prefer your option 2 for the large bandwidth operation. In slide 4, you need to check the performance of your schemes.

A: thanks.

C: Do your proposed schemes make the spectrum flatter than other sachems?

A: The overlapped tone with the DC tone is erased by the transmitter so, EVM and the spectral flatness are not respected

C: What is the difference between op1 and op2?

A: The first 242 tone is aligned for op1 and the last 242 tone is aligned for op2.

1. **24/1480 UHR-LTF for DRU Sigurd Schelstraete (Maxlinear)**

Discussions:

C: Do you think it’s necessary to distinguish the UHR LTF for RRU and the UHR LTF for DRU?

A: It’s necessary. I am completely open to whether we define this for any type of RU or specify that it only applies to DRUs.

C: Why we didn’t have this option for HE-LTF before?

A: I don’t know. No any reason.

1. **24/1552 UHR-LTF Design for DRU - Further Results Mahmoud Kamel (Interdigital)**

Discussions:

C: In option 2, do you consider the pilot location for 2 SS?

A: We don’t consider the pilot location for 2 SS. We only consider the 1 SS in our simulation.

C: In your simulation of PAPR, is it an average PAPR of total RUs?

A: Yes.

C: Do you apply the TX power boosting for DRU?

A: No power boosting applied

1. **24/1567 LTF Design for DRU Ron Porat (Broadcom)**

Discussions:

C: What do you think is the proper value of LTF for DRU if it is similar to other cases?

A: There is no drawback to having a lower PAPR.

C: We have different tone plans and pilots. So it is too early to decide the exact sequence.

A: Yes. Firstly, we just took the time to design the LTF sequence.

C: What do you think should be a good metric when we consider a different LTF design?

A: I think it’s the PAPR.

C: How do you come up with a specific sequence that you’re proposing

A: We took the tone plan for 26 tones and took 2 26 tones for 52 tones. The sequence to minimize the PAPR for DRU of DRU tone plan and reference one in the pilot locations. And optimize it.

C: How important is the pilot tone?

A: It does significantly

C: Do you apply any special extension metrics?

A: there are no special extension metrics.

**Adjourn**

The meeting is Adjourned at 21:00pm ET.

## Thursday October 17th, 2024 10:00 – 12:00 ET

**Introduction**

1. The Chair (Tianyu, Apple) calls the meeting to order at 10:00am ET.
2. The Chair follows the agenda in 11-24/1643r4.
3. The Chair goes through the IPR policy and asks if anyone is aware of any potentially essential patents. **Nobody speaks up.**
4. The Chair goes through the Copyright policy.
5. The Chair reminds everyone to report their attendance by using IMAT system and by sending an e-mail to the Co-chair, Dongguk Lim (LGE), Sigurd Schelstraete (MaxLinear) or the Chair himself if unable to record attendance via IMAT system.
6. Discussions on the agenda.
	* [24/1097r0](https://mentor.ieee.org/802.11/dcn/24/11-24-1097-00-00bn-thoughts-on-uhr-ltf-for-dru.pptx) Thoughts on UHR-LTF for DRU Eunsung Park [2 SPs]
	* [24/1443](https://mentor.ieee.org/802.11/dcn/24/11-24-1443-03-00bn-dpwifi-reva.pptx) DPWiFi RevA Carlos Rios
	* [24/1487](https://mentor.ieee.org/802.11/dcn/24/11-24-1487-00-00bn-ldpc-and-framing-settings-for-ultra-high-reliability.pptx) LDPC and Framing Settings for Ultra High Reliability Rainer Strobel
	* [24/1492](https://mentor.ieee.org/802.11/dcn/24/11-24-1492-00-00bn-comparison-between-dynamic-and-fixed-start-csd-assignment.pptx) Comparison between Dyn. & Fixed Start CSD Assignment Bo Gong
	* [24/1556](https://mentor.ieee.org/802.11/dcn/24/11-24-1556-01-00bn-thoughts-on-dru-availability-for-regulatory-compliance.pptx) Thoughts on DRU Availability for Regulatory Compliance Yusuke Asai
	* 24/1586 Reducing CSD collisions for DRU STF Leonardo Lanante
	* 24/1644 Compact User field encodings Brian Hart
	* 24/1645 Compact User field encodings - detailed examples Brian Hart