IEEE P802.11
Wireless LANs

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| 802.11 AMP TIG Session minutes for January 2023 IEEE Interim |
| Date: 2023-1-16 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Zhisong Zuo | OPPO | Hua Run Building B, Gui Wan 4th road, Shenzhen, China |  | zuozhisong@oppo.com |

Abstract

This document includes minutes of AMP TIG Sessions of January 2023 IEEE 802 Interim mixed-mode meetings.

Version Tracking:

R0: Creating the minutes, January 16th.

# Monday 16 January 2023 @ 7:30-9:30 pm ET

## Opening (IEEE 802.11-22/2137r1)

* 1. Call to order 7:30 pm ET.
	2. Chair instructed members to record attendance in IMAT.
	3. Chair introduced the patent policy and meeting rules (slides 2-8).
	4. No response to the call for patents.
	5. Chair introduced IEEE-SA COPYRIGHT POLICY (slides 9-10)
	6. Chair reviewed other Guidelines, Guideline for Straw Polls, Suggested Best Practices in Mix-mode and Registration for January mixed-mode Interim Meeting (slides 11-15).
	7. Chair reviewed current AMP TIG Session Plan, AMP Documents Update, AMP Teleconference Progress, AMP session Agenda, and future Teleconference Plan (slides 16-23).
	8. Jon Rosdahl is local coordinator, Zhisong Zuo is executive secretary.
	9. Chair call for approval of the agenda of the AMP session.

## Agenda (IEEE 802.11-22/2137r1)

* 1. Chair presented the agenda: https://mentor.ieee.org/802.11/dcn/22/11-22-2137-01-0amp-amp-tig-meeting-agenda-for-jan-interim-2023.pptx. (slide 19)
		+ Call meeting to order and remind the group to record attendance on imat.ieee.org
		+ IEEE-SA IPR policies and meeting rules
		+ Approval of agenda
		+ AMP TIG Dec 2022 TC summary
		+ Contribution discussion list updates

11-22/2207, FCC Part 15 and Channel Widths, Dave Halasz (Morse Micro)

11-22/0089, Frequency regulation chapter for AMP TIG Report, Joerg Robert (TU Ilmenau / Fraunhofer IIS)

11-23/0064, Discussion on S1G regulation requirements, Weijie Xu (OPPO)

11-23/0072, Proposed revision on draft technical report for AMP, Amichai Sanderovich (Wiliot Ltd)

11-23/0056, 802.11 compatible backscatter prototype, Vytas Kezys (Haila)

* + - Any other business?
		- Recess
	1. No objection, Agenda approved.

## Contribution discussion

* 1. Presentation of IEEE 802.11-22/2207, FCC Part 15 and Channel Widths, by Dave Halasz (Morse Micro):

Q(uestion): I’m assuming you talking about narrow band is due to energizer, to follow FCC regulation.

A(nswer): We would like to consider that restriction for all reader’s signal.

Q(uestion): If we can just transmit wider bandwidth than 500kHz to follow the FCC regulation for transmit in 902 – 928 MHz, then it is still work for AMP devices.

A(nswer): That can be allowed. But this is only for US, not sure for other regions.

Q(uestion): Still, that FCC regulation should apply to communication. Does it also apply to energizer?

A(nswer): We assume it is also for energizer. Since it transmits signal.

* 1. Presentation of IEEE 802.11-23/0089 Frequency Regulation Chapter for AMP TIG Report, by Joerg Robert (TU Ilmenau / Fraunhofer IIS)

Q(uestion): 29.14 dBm is close to 30 dBm and can work for AMP devices. The devices can adapt base on the regulations of different regions.

A(nswer): The paper is to show some insides of the EU frequency regulation and implication to the AMP technologies. And we desire same set of standard over different regions.

Q(uestion): For 29 dBm case, the energizer can be easily adapted. And this is not very sensitive to the bandwidths. Also, for the 35 dBm case, what it the angular requirement of the directive antenna. We this the directive should also work for AMP devices.

A(nswer): We shown that as 90 degree in the paper. The original ETSI regulation are very specific and that should be followed.

Q(uestion): Focus on the fact of the Regulation on the frequency for Europe. Those can actually be considered in the technical discussion. It seems those are feasible, including the directive antenna.

A(nswer): Yes, this is just giving some factual details of the Regulation.

* 1. Presentation of IEEE 802.11-23/0064 Discussion on S1G regulation requirements, by Weijie (OPPO)

Q(uestion): Should we consider different standard for different region?

A(nswer): The adaptation would be simpler due to the simple OOK wave form. So, the differences would be small.

Q(uestion): In Europe, the regulation is quite different. We also expect that will bring much different in standard.

A(nswer): We can discuss that in the study. But we do not expect too much different.

* 1. Presentation of IEEE 802.11-23/0112 Ambient IOT Device Demo, by Amichai Sanderovich (Wiliot Ltd), (newly create to demo for use cases paper in section 3.5)

Q(uestion): The distance for receiving the signal from the devices?

A(nswer): Similar as the Energizing Module to devices, around 10 meter.

Q(uestion): How you do the transmission of devices? What is the protocol it is using for device transmit to iPhone？

A(nswer): The device is actively transmitting. Blue tooth.

Q(uestion): Transmission power of device?

A(nswer): Did not check.

Q(uestion): How long to charge before activating the devices?

A(nswer): Short like 2 seconds, and also depend on distance.

Q(uestion): Is there battery inside?

A(nswer): No, the energy is from harvested power.

* 1. Presentation of IEEE 802.11-23/0062 Proposed revision on Draft Technical Report for AMP, by Amichai Sanderovich (Wiliot Ltd)

Comment: Very good use case for storing food, which related to everyone.

* 1. Presentation of IEEE 802.11-23/0056, 802.11 compatible backscatter prototype, by Vytas Kezys (HaiLa)

Q(uestion): What is the UL link signal?

A(nswer): The UL signal is 802.11 compatible.

Q(uestion): What is the signal modulation scheme.

A(nswer): It use DSS.

Q(uestion): What about the power consumption of the device when you doing backscattering?

A(nswer): No exact number of power, but it would be in similar level of other backscattering.

Q(uestion): What about the date rate?

A(nswer): DL 1 Mbps, DSS signal

Q(uestion): For the DSS signal, do you do the synchronization in the device?

A(nswer): Yes.

Q(uestion): How to extend the coverage.

A(nswer): Works on infrastructure and device have to be done to meet the use case coverages.

## Closing

* 1. The chair announced the session recessed at 9:30 pm ET.
	2. Next session will be on January 19th

## Closing

* 1. Chair adjourned the session at xx:xx ET.