IEEE P802.18  
Radio Regulatory Technical Advisory Group (RR-TAG)

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| Radio Regulatory Technical Advisory Group Minutes  May Mixed-Mode 802 Interim Session 2023 | | | | |
| Date: 5 June 2023 | | | | |
| Author: | | | | |
| Name | Company | Address | Phone | email |
| Amelia Andersdotter | Self | Belgium |  | amelia.ieee@andersdotter.cc |
| Al Petrick | Skyworks |  |  |  |

Abstract

This document constitutes the minutes of the IEEE 802.18 Technical Advisory Group from the May IEEE 802 May Mixed Mode wireless Interim Session 2023, with on-site participants in Orlando, Florida, USA and remote participants through Webex. "Local time" in this document means "local time" in Orlando, Florida , USA (UTC-4).

**C:** means question or comment from participant.

**Chair:** means statement by the chair as chair.  
Highlight means action point.

r0: original version.

Chair: Edward Au (Huawei)

Co-Vice-chairs: Stuart Kerry (OK-Brit/Self) and Al Petrick (Skyworks Solutions)

Secretary: Amelia Andersdotter (Comcast)

IEEE SA Program Manager: Jodi Hassz (IEEE SA)

* IEEE 802.18, RR-TAG website: <https://www.ieee802.org/18/>

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IEEE 802.18, RR-TAG website: <https://www.ieee802.org/18/> .

**Opening meeting**

1. Opening formalities
2. Chair calls the meeting to order at 10:31 local time on May 16, 2023. Quorum is asserted.  
     
   Agenda slide deck [18/23-0045r2](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fmentor.ieee.org%2F802.18%2Fdcn%2F23%2F18-23-0045-02-0000-rr-tag-2023-may-wireless-interim-agenda.xlsx&wdOrigin=BROWSELINK) with supplementary materials in [18/23-0046r2](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fmentor.ieee.org%2F802.18%2Fdcn%2F23%2F18-23-0046-02-0000-2023-may-rr-tag-supplementary-materials.pptx&wdOrigin=BROWSELINK).
3. Group officers are present.   
   For this session, minutes were recorded by Al Petrick on behalf of Amelia Andersdotter.
4. This meeting is part of the IEEE 802 mixed mode Interim session in Orlando, Florida, USA organized between 14 May and 19 May 2023.

* You **must** pay the registration fee in order to attend
* If you have not already done so, you can register w/Face to Face Events – Registration website at:
* [**https://web.cvent.com/event/c8c74da9-42ef-4650-bbf6-d33d40c6bedc/summary**](https://web.cvent.com/event/c8c74da9-42ef-4650-bbf6-d33d40c6bedc/summary)
* Registration reminder by the Chair: If you do not intend to register for this session you must leave this meeting and, if you have logged attendance on IMAT, please email the 802.18 chair or a vice chair to have your attendance canceled
* At conclusion of each of the 802.18 calls, the Webex log and IMAT will be reviewed.
* No payment, become dead beat and lose voting rights in all groups, after 60-day grace.

1. Chair presents the agenda.   
     
   Chair reminds the group, Guido Hiertz will present document 18/23-0054r0 (European spectrum regulation and the harmonized market of the European Union – an overview) during the closing 802.18 plenary on Thursday May 18, 2023 and reserve the majority of the meeting time for the presentation. The presentation will cover European market and regulation.   
     
   No other comments or questions on the agenda.
2. Group officers and voting membership (as of 12 April 2023)

Voters: 50 (8 on LMSC)

Nearly Voters: 4

Aspirant members: 13

[802.18 Voters List](https://www.ieee802.org/18/RRTAG_Voters.pdf)

* + - **Motion #1 (internal):** To approve the agenda as shown in the “RR-TAG Opening” tab of the document 18/23-0045r2.

Moved by: Ian Sherlock

Seconded by: Stuart Kerry

Discussion? None

Vote: Approved with unanimous consent.

1. Voter list update.
2. **Policies and procedures**  
   1. RR-TAG Policies & Procedures [[802 LMSC WG P&P](https://mentor.ieee.org/802-ec/dcn/21/ec-21-0207-23-0PNP-ieee-802-lmsc-working-group-policies-and-procedures.pdf)]

IEEE 802 meeting and participant’s guidelines and requirements [[link](http://www.ieee802.org/devdocs.shtml)]

IEEE policies and procedures [[link](https://standards.ieee.org/about/policies/opman/)]

* 1. Reciprocal credit with IEEE 802.11 Working Group (WG) is granted for only the two meeting slots scheduled for IEEE 802.18 as per agreement between the 802.11 and 802.18 chairs.
  2. **Reminder that IMAT is being used for attendance**

Online meeting procedures reminder

Walk-through of session schedule.

* Chair asks group if there are any questions relating to the IEEE policies reviewed in document [18/23-0046r2](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fmentor.ieee.org%2F802.18%2Fdcn%2F23%2F18-23-0046-02-0000-2023-may-rr-tag-supplementary-materials.pptx&wdOrigin=BROWSELINK) . No response, no comments on WebEx Chat window.
* Chair asks group if there is any Press in the room. No response in the room. No comments on WebEx Chat window.
* Chair reminds the group of the meeting room location for Tuesday and Thursday.

1. **General business**  
   1. **Minutes**

* Chair presented the meeting minutes from RR-TAG 2023 March Mixed Mode Wireless Plenary session. No questions or comment.  
   **Motion #2 (internal):** To approve the meeting minutes of the RR-TAG 2023 March plenary session as shown in the document [18-23/0033r2](https://mentor.ieee.org/802.18/dcn/23/18-23-0010-00-0000-january-2023-wireless-interim-minutes.docx), with editorial privilege for the 802.18 Chair.

Moved by: Rich Kennedy

Seconded by: Claudio da Silva

Discussion? None.

Vote: Approved with unanimous consent.

* Vice-Chair reminds the group, those participants who are eligible to receive their voting rights, are given that right at Plenary sessions and not at Interim sessions. No response in the room. No comments on WebEx Chat window.   
    
  **Opening reports**
  + - **Presentation of 802.18 opening report (**[**18/23-0047r1**](https://mentor.ieee.org/802.18/dcn/23/18-23-0022-01-0000-rr-tag-2023-march-plenary-chair-opening-report.ppt)**),** Edward Au (Chair)Chair will present the 802.18 opening report during the wireless 802 Interim opening plenary meeting.
    - **Update on IEEE Spectrum Statement (ISUS) Ad-hoc**, Amelia Andersdotter (Ad-hoc leader)  
        
      Chair gave a brief update. Comments and feedback on the IEEE Spectrum Statement document are pending from the IEEE-SA staff. No action from 802.18 group is required at this time.
    - **Update on IEEE 802.18 Frequency Table Ad-hoc,** Edward Au (ad-hoc co-leader)  
        
      Chair: no updates, or changes currently at this time.

1. **Old Business**
   1. **Status of ongoing consultations and TAG documents for approval (**[**18/22-0035r72**](https://mentor.ieee.org/802.18/dcn/22/18-22-0035-63-0000-status-of-ongoing-consultations-and-tag-documents-for-approval.docx)**),** Edward Au (Chair)Chair briefly presents updates since the last weekly teleconference. No questions or comments.
   2. **On 28 April 2023, Thailand NBTC** [**published**](https://ratchakitcha.soc.go.th/documents/140D100S0000000004000.pdf) **its decision to allow 5925 MHz to 6425 MHz for RLAN use. The technical standards,** [**NBTC TU 1039-2566**](https://ratchakitcha.soc.go.th/documents/140D100S0000000004200.pdf)**, is also available**

**Q:** What is the reference to Wi-Fi?

**Chair:** This is a reference to 802.11.

**Chair:** Thailand finalized the decision and published the document on April 28, 2023. The specifications follow FCC part 15.4054. Indoor 250mW EIRP and 25 mW indoor/outdoor   
6 GHz (focused on the lower 500 MHz).

* 1. **USA FCC: The** [**May 2023 Open Commission Meeting**](https://www.fcc.gov/news-events/events/2023/05/may-2023-open-commission-meeting) **is scheduled at 10:30am ET on 18 May 2023. A** [**draft Report and order**](https://docs.fcc.gov/public/attachments/DOC-392978A1.pdf) **“Allowing Expanded Flexibility and Opportunities for Unlicensed Operations in the 60 GHz Band Report and Order, ET Docket No. 21-264” is included as a tentative agenda item.**

**Chair:** Plans to allow unlicensed radar in the 60 GHz band. All unlicensed radars on drones operating at 400 ft and above ground using the 60-64 GHz band. Permissible modulations include: Pulse or More Frequency Modulated Wave.  
**Q:** Any change to the 60 GHz rules?  
**Chair:** No change to the 60 GHz rules using 802.11ad (Appendix D).

**Q:** Was this added to the US Federal Register?

**Chair:** No – pending

* 1. **Consultation: Draft amendment of “Table of Radio Frequency Allocations of the Republic of China (Taiwan)”**

**Chair:** Table of radio frequency allocation focuses on lower 500 MHz (5925 MHz – 6425 MHz) 14 dBm outdoor and 23 dBm indoors w/o harmful interference.   
**Q:** Did Taiwan set power limits?

**Chair:** No – pending.

1. **New Business**
   1. **Proposed response to Taiwan MODA's consultation on the draft amendment of “Table of Radio Frequency Allocations of the Republic of China (Taiwan)” document (23-18/0056r1) (Yaghoobi, Au)**

**Chair:** Edward turns over Chair to Vice-Chair (Al Petrick) while Edward presents documents 23-18/0056r1.

**C:** This draft is a propose response to Taiwan’s MODA’s consultation on the draft amendment of Table of Frequency Allocations of the Republic of China (Taiwan).

**C:** MODA is the abbreviation for Taiwan’s Ministry of Digital Affairs. The response includes background on both IEEE 802.11 and IEEE 802.15 standards and wireless technologies operating in the 6 GHz band.

**C:** Edward completes the review of the draft and is open to suggestions from the group before the due date.

**Chair:** No further questions.

Vice-Chair turns Chair back to Edward.

* 1. **Inquiry on Hotel Room Book Rate**

Chair reminded group, IEEE 802 WCSC would like to understand if any participant used another source to book their hotel reservation this week.   If so, please let Chairs know so IEEE 802 can get credit for their booking.

1. **AoB**Chair remind group of Closing plenary on Thursday AM1 8:00AM – to 10:00 ET May 18, 2023.
2. **Recess at 11:55 ET AM local time.**

**Closing meeting -- May 18, 2023**

1. **Opening formalities**
   1. Chair calls meeting to order at 08:01 local time. Quorum is declared.
   2. Agenda slide deck [18/23-0045r3](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fmentor.ieee.org%2F802.18%2Fdcn%2F23%2F18-23-0045-02-0000-rr-tag-2023-may-wireless-interim-agenda.xlsx&wdOrigin=BROWSELINK) with supplementary materials in [18/23-0046r4](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fmentor.ieee.org%2F802.18%2Fdcn%2F23%2F18-23-0046-02-0000-2023-may-rr-tag-supplementary-materials.pptx&wdOrigin=BROWSELINK).
   3. Officer introduction.
   4. Reminder of registration fee was presented.
   5. Agenda review

**Motion #3 (internal): To approve the agenda as shown in the “RR-TAG Closing” tab of the document 18-23/0045r4.**

Moved by: Ian Sherlock

Seconded by: Stuart Kerry

Discussion? None

Vote: Approved with unanimous consent

1. **Policies and procedures**
   1. IEEE 802 required notices
      * Declaration of affiliation
      * Anti-trust notices
      * IEEE 802 WG policies and procedures
   2. Guidelines for IEEE SA meetings were introduced.
      * Reminder to object when inappropriate topics are discussed
      * IEEE 802 Code of Conduct and Code of Ethics were introduced.
      * Reminder of the IEEE SA individual process applied in IEEE 802 Committee.
      * Reminder of IEEE SA board bylaws specifying fair and equitable consideration of all viewpoints.

For links to relevant documents see para 2. above or consult the supplementary chair materials contained in document 18-23/0046r4. Chair asked for comments, questions or concerns. None reported.

* 1. Reminder of housekeeping and meeting decorum.

1. **New Business**
   1. **European Spectrum Regulation and the Harmonized Market of the European Union – An Overview** ([18/23-0054r0](https://mentor.ieee.org/802.18/dcn/23/18-23-0032-00-0000-response-of-ieee-802-to-liaison-statement-from-etsi-isg-thz.docx)), Guido Hiertz (Ericsson) and Sebastian Max (Ericsson)

**C:** Document 18/23-0054r0 is comprehensive overview of European Spectrum and Harmonized market of the European Union. It covers the ECC and different groups, the European Union and countries, EU institution, The EC, CE market, Radio equipment directive (RED) and various relationships between (EC, CEPT and ETSI), and between (ECC and ETSI).

Notable slides:   
**Slide 49:** What is ETSI  
**Slide 41:** CENELEC and ETSI develop harmonized standards. All technologies are voluntary (not mandatory. No one force the use of 802.11.   
  
**Slide 11:** What does the ECC do, ECC Deliverables: ECC recommendations, ECC reports, CEPT report, ECC decisions,   
**Slide 14:** Exam of an ECC Decision – 6 GHz.  
  
**Slide 60:** European Norm Approval Process.

**Slide 64:** ETSI-BRAN (list of harmonized standards),   
**Slide 65:** (EN 303 687) 6 GHz, expectations 6 GHz ENAP 2023  
**Slide 66:** (EN301 893) 5.8 GHz,   
  
**Slide 43:** Relationship between EC, CEPT and ETSI,   
**Slide 45:** Relationship between ECC and ETSI.

**Slide 30:** Directive 2014/53/EU ---- Radio equipment directive (RED)? Important to 802.11/15 for products – relies on receiver specifications.   
**Slide 37:** Comparison between FCC type approval and EU Notified bodies and self declaration of conformity.  
**Slide 40:** Example of declaration of conformance in the EU.

**Slide 69:** 5.8 GHz Licensed-Exempt in Czech Republic.

1. **Closing formalities**
   1. **Audited Meeting / Session Attendance**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Attendees** | **Voters** | **Non-Voters** |
| 16-May | 36 | 27 | 9 |
| 18-May | 38 | 25 | 13 |

* 1. **Future meetings.**
* See document [18-23/0046r5](https://mentor.ieee.org/802.18/dcn/23/18-23-0046-05-0000-2023-may-rr-tag-supplementary-materials.pptx) and [18-16/0038r32](https://mentor.ieee.org/802.18/dcn/16/18-16-0038-32-0000-teleconference-call-in-info.pptx) for schedule for future meetings (weekly teleconference calls, ISUS ad-hoc teleconference calls and 2023 July plenary meeting and registration fees.
  1. Adjourn:
* Any objection to Adjourn? None heard.
* Adjourn at 10:01 local time

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| **ATTENDANCE (Interim Attendance Names and Affiliations) [Report by Stuart Kerry]:** | | | | | | |
|  | | | | | | |
| **Voting Attendees:** | | | | **16-May** | **18-May** | **Credit >75%** |
| 1 | **Au** | Edward (Kwok Shum) | Huawei Technologies Co., Ltd | **x** | **x** | **TRUE** |
| 2 | **Baykas** | Tuncer | Ofinno | **x** | **x** | **TRUE** |
| 3 | **da Silva** | Claudio | Meta Platforms, Inc. | **x** | **x** | **TRUE** |
| 4 | **de Vegt** | Rolf | Qualcomm Incorporated | **x** | **x** | **TRUE** |
| 5 | **Eitan** | Alecsander | Qualcomm Incorporated | **x** | **x** | **TRUE** |
| 6 | **Fang** | Yonggang | MediaTek | **x** | **x** | **TRUE** |
| 7 | **Godfrey** | Tim | Electric Power Research Institute, Inc. (EPRI) | **x** | **x** | **TRUE** |
| 8 | **Halasz** | Dave | Morse Micro | **x** | **x** | **TRUE** |
| 9 | **Hiertz** | Guido | Ericsson GmbH | **x** | **x** | **TRUE** |
| 10 | **Jeffries** | Timothy | FutureWei Technologies, Inc. | **x** | **x** | **TRUE** |
| 11 | **Kain** | Carl | USDOT, Noblis, Inc. | **x** | **x** | **TRUE** |
| 12 | **Kasher** | Assaf | Qualcomm Incorporated | **x** |  | **FALSE** |
| 13 | **Kennedy** | Richard | Bluetooth SIG | **x** | **x** | **TRUE** |
| 14 | **Kerry** | Stuart | OK Brit, Self | **x** | **x** | **TRUE** |
| 15 | **Kürner** | Thomas | TU Braunschweig | **x** | **x** | **TRUE** |
| 16 | **Lansford** | James | Qualcomm Incorporated | **x** | **x** | **TRUE** |
| 17 | **Levy** | Joseph | InterDigital, Inc. | **x** | **x** | **TRUE** |
| 18 | **Max** | Sebastian | Ericsson AB | **x** | **x** | **TRUE** |
| 19 | **Petrick** | Al | Skyworks Solutions Inc. | **x** | **x** | **TRUE** |
| 20 | **Pettersson** | Charlie | Ericsson AB |  | **x** | **FALSE** |
| 21 | **Porat** | Ron | Broadcom Corporation | **x** |  | **FALSE** |
| 22 | **Robert** | Joerg | TU-Ilmenau/Fraunhofer IIS | **x** | **x** | **TRUE** |
| 23 | **Sand** | Stephan | German Aerospace Center (DLR) | **x** | **x** | **TRUE** |
| 24 | **Sherlock** | Ian | Texas Instruments | **x** | **x** | **TRUE** |
| 25 | **Stanley** | Dorothy | Hewlett Packard Enterprise | **x** | **x** | **TRUE** |
| 26 | **Verso** | Billy | Qorvo | **x** | **x** | **TRUE** |
| 27 | **Wang** | Lei | FutureWei Technologies, Inc. | **x** | **x** | **TRUE** |
| 28 | **Ward** | Lisa | Rohde & Schwarz | **x** |  | **FALSE** |
|  |  |  |  |  |  |  |
| **Non-Voting Attendees:** | | | | **16-May** | **18-May** | **Credit >75%** |
| 1 | **Carney** | Bill (William) | Sony Corporation |  | **x** | **FALSE** |
| 2 | **Cordeiro** | Carlos | Intel Corporation |  | **x** | **FALSE** |
| 3 | **Davis** | Mike | Nordic Semiconductor ASA |  | **x** | **FALSE** |
| 4 | **Emmelmann** | Marc | Self |  | **x** | **FALSE** |
| 5 | **Granhaug** | Kristian | Novelda AS | **x** |  | **FALSE** |
| 6 | **Kitazawa** | Shoichi | Muroran Institute of Technology | **x** | **x** | **TRUE** |
| 7 | **Li** | Huan Bang | National Institute of Information and Communications Technology (NICT) | **x** | **x** | **TRUE** |
| 8 | **McCann** | Stephen | Huawei Technologies Co., Ltd |  | **x** | **FALSE** |
| 9 | **Riegel** | Maximilian (Max) | Nokia |  | **x** | **FALSE** |
| 10 | **Shen** | Andy | Futurewei, U.S. Subsidiary of Huawei | **x** | **x** | **TRUE** |
| 11 | **Stacey** | Robert | Intel Corporation |  | **x** | **FALSE** |
| 12 | **Strobel** | Rainer | MaxLinear | **x** |  | **FALSE** |
| 13 | **Val** | Inaki | MaxLinear | **x** | **x** | **TRUE** |
| 14 | **Wendt** | Matthias | Signify | **x** |  | **FALSE** |
| 15 | **Wilhelmsson** | Leif | Ericsson AB | **x** | **x** | **TRUE** |
| 16 | **Yu** | Jian | Huawei | **x** | **x** | **TRUE** |