**IEEE 802.15**

**Wireless Specialty Networks (WSN)**

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| Project | IEEE 802.15 Working Group for Wireless Specialty Networks (WSN) | |
| Title | **IEEE 802.15 TG 4ab (NG-UWB) November 2024 Plenary Minutes** | |
| Date Submitted | [8 Jan, 2025] | |
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| Re: | [Nov 802.15 Interim Meeting held in Hybrid Mode] | |
| Abstract | [IEEE 802.15 Task Group 4ab minutes] | |
| Purpose | [Official minutes of IEEE 802.15 TG 4ab] | |
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# Monday, 11 Nov, 2024 – PM1

**Opening**

**1:33 PM PST** Chair, Ben Rolfe (Blind Creek Associates), called the meeting to order and opened the TG Agenda.  
(*15-24-0608-00-04ab*)

* >40 attendees joined the meeting

Chair introduced the hybrid meeting logistics.

Chair reminded the group of registration for 802 LMSC and wireless interim.

## Legal

Chair reminded the group of the following from the 802.15 opening meeting:

* IEEE-SA patent policy
* Submission of Letter(s) of Assurance (LoA) or to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for any of the ongoing activities within the 802.15 WG.
  + No essential patent claims were brought forth
* IEEE Anti-Trust statement
* IEEE Copyright Policy, including Code of Ethics

**Announcements**

Chair announced the agenda doc. *#15-24-0582-01-04ab* for the week. There were several requests on the time slots for presentations. The agenda was updated to doc. *#15-24-0582-02-04ab.* There was no further discuss on the agenda. It was passed with unanimous consent.

Chair raised the motion of minutes for Sep plenary *(doc. # 15-24-0584-00-04ab)* and telecons between Sep and Nov 2024 *(doc. # 15-24-0585-00-04ab)*. No discussion heard.

Motion to approve minutes contained in documents 15-24-0584-00 and 15-24-0585-00

* Moved by: Carlos (Meta)
* Second by: Clint Chaplin (Samsung)

No one objected to approve the motion. It was approved by unanimous consent.

Chair reviewed the objectives of this week.

**TG Meeting Activity**

Using the agenda *(doc. # 15-24-0582-01-04ab)* Chair proceeded with running the meeting.

Vice Chair Clint Chaplin (Samsung) and Billy Verso (Qorvo) reviewed the consolidated comments and assigned comments to volunteers. (*doc. # 15-24-0371-27-04ab*)

Chair reviewed the slots for breakout.

**Presentation #1:**

Carlos Aldana (Meta) presented “Update on NB Coexistence progress in ETSI.”

(*doc. # 15-24-0595-01-04ab*)

Comment:

Alex: it’s not agreed yet.

Carlos: close to be agreed.

Carlos Aldana (Meta) circled back “Proposed resolution for CID 988” (*doc. # 15-24-0407-06-04ab*)

Need more offline discussion.

**Presentation #2:**

Mickael Maman (STMicroelectronics) presented “RSS Comments”

(*doc. # 15-24-0613-00-04ab*)

Need more offline discussion.

**Presentation #3:**

Li-Hsiang Sun (MediaTek) presented “Proposed\_Resolution\_for\_CID 241\_242\_258”

(*doc. # 15-24-0591-00-04ab*)

Need more offline discussion.

Chair recessed the mtg. @ 3:25PM PST, until Tue. AM1.

# Tuesday, 12 Nov, 2024 – AM1

## Opening

**8:03 AM PST** Chair, Ben Rolfe (Blind Creek Associates), called the meeting to order and opened the TG Agenda.  
(*15-24-608-00*)

* >20 attendees joined the meeting

## Legal

Chair reminded the group of the following from the 802.15 opening meeting:

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  + No essential patent claims were brought forth
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**TG Meeting Activity**

Using the agenda *(doc. # 15-24-0582-04-04ab-tg4ab-detailed-agenda-november-2024)* Chair proceeded with running the meeting.

Rojan (Huawei) requested to replace 24/381r1 with 24/589r0. Chair agreed and 24/381r1 is moved to Thursday PM1 session.

**Presentation #4:**

Rojan (Huawei) presented “Proposed enhancements to secure Compact frames”

(*doc. #* *15-24-0587r0*)

Need more discussion offline.

**Presentation #5:**

Rojan (Huawei) presented “Proposed Resolution for CAP Initialization”

(*doc. #* *15-24-0588r0*)

Rojan to double check the resolution for one comment (#423) and come back. No comments heard on other comments.

**Presentation #6:**

Rojan (Huawei) presented “Proposed Resolution for Status Code”

(*doc. #* *15-24-0589r0*)

There were no objections to comment resolutions in doc. # 15-24-0589-00

Chair recessed the mtg. @ 10:00am PST, until Tue. PM1.

# Tuesday, 12 Nov, 2024 – PM1

## Opening

**1:37 PM PST** Chair, Ben Rolfe (Blind Creek Associates), called the meeting to order and opened the TG Agenda.  
(*15-24-608-00*)

* ~48 attendees joined the meeting

## Legal

Chair reminded the group of the following from the 802.15 opening meeting:

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  + No essential patent claims were brought forth
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* IEEE Copyright Policy, including Code of Ethics

**TG Meeting Activity**

Using the agenda *(doc. # 15-24-0582-05-04ab-tg4ab-detailed-agenda-november-2024)* Chair proceeded with running the meeting.

**Presentation #7:**

Rojan (Huawei) presented “Proposed Resolution for CAP Initialization”

(*doc. #* *15-24-0588r0*)

Rojan re-presented the resolution for comment (#423), no changes made to 588r0.

There were no objections to comment resolutions in doc. # 15-24-0588-00

**Presentation #8:**

Koorosh Akhavan (Qualcomm) presented “Regarding Timing Offset Between NB and MMS”

(*doc. #* *15-24-0632r0*)

Some clarification questions were made on the presentation.

Need more discussion offline.

**Presentation #9:**

Huan-Bang Li (NICT) presented “Proposed Resolutions for CIDs: 505, 506, 519, 520”

(*doc. #* *15-24-0607r1*)

There were no objections to comment resolutions in doc. # 15-24-607-00

**Presentation #10:**

Youngwan So (Samsung) presented “Comment Resolution - Part 1”

(*doc. #* *15-24-0577r2*)

No technical concerns on the proposed changes.

**Presentation #11:**

Billy Verso (Qorvo) presented “D01 comment resolutions misc-B”

(*doc. #* *15-24-0590r0*)

There were no objections to comment resolutions in doc. # 15-24-590-00

**Presentation #12:**

Carl Murray (Qorvo) presented “Draft 1 Comment Resolutions”

(*doc. #* *15-24-0435r2*)

Request received to defer the approval to tomorrow.

Chair recessed the mtg. @ 3:31pm PST, until Wed. AM1.

# Wednesday, 13 Nov, 2024 – AM1

## Opening

**9:03 AM PST** Chair, Ben Rolfe (Blind Creek Associates), called the meeting to order and opened the TG Agenda.  
(*15-24-608-01*)

* >20 attendees joined the meeting

## Legal

Chair reminded the group of the following from the 802.15 opening meeting:

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  + No essential patent claims were brought forth
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**TG Meeting Activity**

Using the agenda *(doc. # 15-24-0582-05-04ab-tg4ab-detailed-agenda-november-2024)* Chair proceeded with running the meeting.

**Presentation #13:**

Youngwan So (Samsung) presented “Comment Resolution Part 2”

(*doc. #* *15-24-0640r0*)

Need more discussion offline.

**Presentation #14:**

Jinjing Jiang (Apple) presented “proposed resolution for the remaining one-to-many ranging related CID”

(*doc. #* *15-24-0606r0*)

There were no objections to comment resolutions in doc. # 15-24-0606-01

**Presentation #15:**

Li-Hsiang (MediaTek) presented “Proposed\_Resolution\_for\_CID 241\_242\_258”

(*doc. #* *15-24-0591r1*)

There were no objections to comment resolutions in doc. # 15-24-0591-01

Chair recessed the mtg. @ 10:00am PST, until Wed. PM1.

# Wednesday, 13 Nov, 2024 – PM1

## Opening

**1:35 AM PST** Chair, Ben Rolfe (Blind Creek Associates), called the meeting to order and opened the TG Agenda.  
(*15-24-608-01*)

* 37 attendees joined the meeting

## Legal

Chair reminded the group of the following from the 802.15 opening meeting:

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  + No essential patent claims were brought forth
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**TG Meeting Activity**

Clint gave a status report for the L207 comment resolutions (24/371r27).

Rojan requested transfer of CID 1189 from Bin Qian to Rojan.

Using the agenda *(doc. # 15-24-0582-06-04ab-tg4ab-detailed-agenda-november-2024)* Chair proceeded with running the meeting.

**Presentation #16:**

Riku (NXP) presented “Comment resolution - 31, 40, 137, 957, 1400, 958, 671, 963”

(*doc. #* *15-24-0576r1*)

Some discussions between Riku and Alex for CID 1400

CID 671 to be marked editorial and taken out of 24/576r1.

More discussions required for CID 963.

Need more discussion offline.

**Presentation #17:**

Xiliang (Apple) presented “SS-TWR in the case of MMS ranging”

(*doc. #* *15-24-0639r1*)

Xilaing mentions that DS-TWR could be one solution.

Need more discussion offline.

**Presentation #18:**

Youngwan So (Samsung) presented updates for “Comment Resolution - Part 1”

(*doc. #* *15-24-0577r3*)

There were no objections to comment resolutions in doc. # 15-24-0577-03

**Presentation #19:**

Mickael Maman (STM) presented updates for “proposed comment resolution on multiple RCM and RSS”

(*doc. #* *15-24-0613r1*)

There were no objections to comment resolutions in doc. # 15-24-0613-01

# Thursday, 14 Nov, 2024 – AM1

## Opening

**8:05 AM PST** Chair, Ben Rolfe (Blind Creek Associates), called the meeting to order and opened the TG Agenda.  
(*15-24-608-01*)

* >20 attendees joined the meeting

## Legal

Chair reminded the group of the following from the 802.15 opening meeting:

* IEEE-SA patent policy
* Submission of Letter(s) of Assurance (LoA) or to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for any of the ongoing activities within the 802.15 WG.
  + No essential patent claims were brought forth
* IEEE Anti-Trust statement
* IEEE Copyright Policy, including Code of Ethics

**TG Meeting Activity**

Using the agenda *(doc. # 15-24-0582-07-04ab-tg4ab-detailed-agenda-november-2024)* Chair proceeded with running the meeting.

**Presentation #20:**

Vinod Kristem (Apple) presented “Dynamic PHR Sync Negotiation”

(*doc. #* *15-24-0620r0*)

Need more discussion offline.

**Presentation #21:**

Alex Krebs (Apple) presented “LB207/D01 comment resolution -- Vancouver -- CIDs 188, 236, 404, 659, 987, 993, 1167, 1168, 1169, 1335, 1348, 1357, 1403”

(*doc. #* *15-24-0648r1*)

There were no objections to comment resolutions in doc. # 15-24-0648-01

Chair recessed the mtg. @ 9:59am PST, until Thur. AM2.

# Thursday, 14 Nov, 2024 – AM2

## Opening

**10:30 AM PST** Chair, Ben Rolfe (Blind Creek Associates), called the meeting to order and opened the TG Agenda.  
(*15-24-608-02*)

* >20 attendees joined the meeting

## Legal

Chair reminded the group of the following from the 802.15 opening meeting:

* IEEE-SA patent policy
* Submission of Letter(s) of Assurance (LoA) or to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for any of the ongoing activities within the 802.15 WG.
  + No essential patent claims were brought forth
* IEEE Anti-Trust statement
* IEEE Copyright Policy, including Code of Ethics

**TG Meeting Activity**

Using the agenda *(doc. # 15-24-0582-07-04ab-tg4ab-detailed-agenda-november-2024)* Chair proceeded with running the meeting.

Clint gave a status report for the L207 comment resolutions (24/371r27).

**Presentation #22:**

Jinjing Jiang (Apple) presented “proposed resolution for the remaining one-to-many ranging related CID”

(*doc. #* *15-24-0606r3*)

Jinjing gave some update to CID 277.

There were no objections to comment resolutions in doc. # 15-24-0606-03

**Presentation #23:**

Benjamin A. Rolfe (BCA et al) presented “Miscellaneous Comments, Part 1”

(*doc. #* *15-24-0658r0*)

There were no objections to comment resolutions in doc. # 15-24-0658-01

**Presentation #24:**

Pooria Pakrooh (Qualcomm) presented “Proposed Comments Resolution for 15.4ab D1.0 Sensing Comments- Part 2”

(*doc. #* *15-24-0660r0*)

Will review revision 1 (removing four CIDs) at PM1.

**Presentation #25:**

Pooria Pakrooh (Qualcomm) presented “Proposed Comments Resolution for 15.4ab D1.0 NB Channel Map Comments: Part 1”

(*doc. #* *15-24-0661r0*)

There were no objections to comment resolutions in doc. # 15-24-0661-00

**Presentation #26:**

Carl Murray (Qorvo) reviewed “CIDs 1114, 1115, 1116, 1334, 1170”

(*doc. #* *15-24-0435r2*)

There were no objections to comment resolutions in doc. # 15-24-0435-02

**Presentation #27:**

Rojan (Huawei) reviewed “Proposed Resolution for Security - PT Data”

(*doc. #* *15-24-0381r2*)

Will continue afternoon.

Chair recessed the mtg. @ 12:31pm PST, until Thu. PM1.

# Thursday, 14 Nov, 2024 – PM1

## Opening

**1:30 PM PST** Chair, Ben Rolfe (Blind Creek Associates), called the meeting to order and opened the TG Agenda.  
(*15-24-608-02*)

* >20 attendees joined the meeting

## Legal

Chair reminded the group of the following from the 802.15 opening meeting:

* IEEE-SA patent policy
* Submission of Letter(s) of Assurance (LoA) or to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for any of the ongoing activities within the 802.15 WG.
  + No essential patent claims were brought forth
* IEEE Anti-Trust statement
* IEEE Copyright Policy, including Code of Ethics

**TG Meeting Activity**

Using the agenda *(doc. # 15-24-0582-08-04ab-tg4ab-detailed-agenda-november-2024)* Chair proceeded with running the meeting.

Clint gave a status report for the L207 comment resolutions (24/371r27).

**Presentation #28:**

Kangjin Yoon (Spark Microsystems) presented “Proposed resolution for 10.21”

(*doc. #* *15-24-0641r2*)

Need more revision and review again.

**Presentation #29:**

Rojan (Huawei) continued AM2 presentation #27 “Proposed Resolution for Security - PT Data”

(*doc. #* *15-24-0381r2*)

Need more revision and will come back later.

**Presentation #30:**

Benjamin A. Rolfe (BCA et al) presented “Miscellaneous Comments, Part 2”

(*doc. #* *15-24-0659r0*)

Clint gave a status report for the L207 comment resolutions (24/371r27).

There were no objections to comment resolutions in doc. # 15-24-0660-01

Motion to approve CRG shown in DCN#608r2

* Moved by: Ben (BCA)

No one objected to approve the motion. It was approved by unanimous consent.

Chair recessed the mtg. @ 3:35 pm PST.