**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **<802.15 TG4ab (NG-UWB) Conf. Call Mins. Jan. to Mar. 2025>** |
| Date Submitted | [6 Mar, 2025] |
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| Re: | [802.15 TG4ab Conf. Call Mins] |
| Abstract | [Official Minutes of the Call] |
| Purpose | [Record the main points of the call] |
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 **802.15 TG4ab (NG-UWB) Conf. Call Minutes**

**between Jan. and Mar. 2025 Mtgs.**

# Thursday, 30 Jan 2025

**Opening**

**14:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order.

**Minutes**

~20 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-01, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-01). There were several presentation requests to change the agenda. There was no objection to the updated agenda (doc. # 15-25-0079-01). It was approved with unanimous consent.

Vice Chair Clint Chaplin (Samsung) and Editor Billy Verso (Qorvo) reviewed the status quo of comments.

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

(doc. # 15-24-0610-00)

There was no objection to the comment resolutions as in doc. # 15-24-0610-00.

Billy Verso (Qorvo) presented “UWB packet format configuration”

(doc. # 15-25-0004-02)

There was no objection to the comment resolutions as in doc. # 15-25-0004-02.

Chair recessed the call @15:00 PDT until 6:00, 4 Feb PDT.

# Tuesday, 4 Feb 2025

**Opening**

**6:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order.

**Minutes**

~20 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-01, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-24-0679-02). There were some changes to the agenda without objections.

Youngwan So (SAMSUNG) presented “Comment Resolution - Part 3”

(doc. # 15-25-0050-03)

There was no objection to comment resolutions in doc. # 15-25-0050-03.

Riku Pirhonen (NXP Semiconductors) presented “Comment resolution - 75”

(doc. # 15-25-0081-00)

There were some discussions. Chair suggested Riku and Carl have more offline discussion and come back later.

Alex Krebs (Apple) presented “LB207/D01 comment resolution -- Clarifications -- CIDs 291, 488, 497, 501, 1019”

(doc. # 15-25-0080-00)

Alex will double check and come back later.

Alex Krebs (Apple) presented “LB207/D01 comment resolution -- Compact frame CRC and RPA Hash -- CIDs 474, 538, 1023, 1024, 1196, 1392”

(doc. # 15-25-0027-01)

More contents will be updated in this document.

Chair recessed the call @8:00 PDT until 6:00, 5 Feb PDT.

# Wednesday, 5 Feb 2025

**Opening**

**6:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order.

**Minutes**

About 15 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-02, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-03). There was no discussion on the agenda.

Alex Krebs (Apple) continued “LB207/D01 comment resolution -- Clarifications -- CIDs 291, 488, 497, 501, 1019”

(doc. # 15-25-0080-01)

There was no objection to comment resolutions in doc. # 15-25-0080-01.

Aniruddh Rao (Samsung Electronics) presented “Proposed Resolution Draft 1.0 comments CID - 1251, 138, 1377, 1319, 273, 274, 1258”

(doc. # 15-25-0061-02)

Need more discussion.

Vice Chair Clint Chaplin (Samsung) reviewed the status of comments.

Chair recessed the call @7:00 PDT until 14:00, 6 Feb PDT.

# Thursday, 6 Feb 2025

**Opening**

**14:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order

**Minutes**

18 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-02, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-03). There was no discussion on the agenda.

Pooria Pakrooh (Qualcomm) presented “Proposed Comments Resolution for 15.4ab D1.0 NB Channel Map Comments: Part 2”

(doc. # 15-25-0043-04)

There was no objection to the comment resolutions as in doc. # 15-25-0043-04.

Riku Pirhonen (NXP Semiconductors) revisited “Comment resolution - 75”

(doc. # 15-25-0081-01)

There was no objection to the comment resolutions as in doc. # 15-25-0081-01.

Carlos Aldana (Meta) presented “Possible Next Steps on NB Channel Access (CID 988)”

(doc. # 15-25-0073-01)

There were some discussions.

Chair recessed the call @15:00 PDT until 6:00 11 Dec, PDT.

# Tuesday, 11 Feb 2025

**Opening**

**6:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order.

**Minutes**

About 25 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-04, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-04). There were some changes on the agenda.

Rojan Chitrakar (Huawei) presented “CRs for Short term operating parameters”

(doc. # 15-25-0085-00)

There was no objection to the comment resolutions as in doc. # 15-24-0641-05.

Youngwan So (SAMSUNG) presented “Proposed Text for Draft 1.0 Comment Resolution - Part 4”

(doc. # 15-25-0087-00)

There was no objection to the comment resolutions as in doc. # 15-24-0557-01.

Alex Krebs (Apple) presented “CRs for Short term operating parameters”

(doc. # 15-25-0027-02)

Some people need more time to review.

Alex Krebs (Apple) presented “LB207/D01 comment resolution -- CIDs 276, 405, 998”

(doc. # 15-25-0086-00)

There was no objection to the comment resolutions as in doc. # 15-24-0641-05.

Alex Krebs (Apple) presented “LB207/D01 comment resolution -- No consensus -- CIDs 994, 1008”

(doc. # 15-24-0521-03)

There are some discussions and revisions are needed.

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

(doc. # 15-24-0659-02)

There are some discussions.

Riku Pirhonen (NXP) presented “Comment resolution 963”

(doc. # 15-25-0066-00)

Some people need more time to review.

Chair recessed the call @8:02 PDT until 14:00, 13 Feb PDT.

# Thursday, 13 Feb 2025

**Opening**

**14:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order

**Minutes**

~20 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-05, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-06). There was no discussion on the agenda.

Carlos Aldana (Meta) presented “CID 998 Resolution”

(doc. # 15-25-0091-00)

This CID is already resolved in another document is accepted. Carlos will check and come back.

Alex Krebs (Apple) updated “LB207/D01 comment resolution -- Compact frame CRC and RPA Hash -- CIDs 474, 538, 1023, 1024, 1196, 1392”

(doc. # 15-25-0027-02)

Some changes are made. There was no objection to the comment resolutions as in doc. # 15-25-0027-03.

Pooria Pakrooh (Qualcomm) presented “Resolution to CIDs 1360 and 1362 for 15.4ab Draft 1.0”

(doc. # 15-25-0069-02)

There was no objection to the comment resolutions as in doc. # 15-25-0069-02.

Pooria Pakrooh (Qualcomm) presented “Proposed Comments Resolution for 15.4ab D1.0 Sensing Comments- Part 3”

(doc. # 15-25-0042-00)

There was no objection to the comment resolutions as in doc. # 15-25-0042-01.

Vice Chair recessed the call @15:03 PDT until 6:00 PDT, 18 Dec.

# Tuesday, 18 Feb 2025

**Opening**

**6:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order.

**Minutes**

About 25 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-05, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-07). There were some changes on the agenda without objection.

Aniruddh Rao (Samsung Electronics) presented “ Proposed Resolution Draft 1.0 comments CID - 1251, 138, 1377, 1319, 273, 274, 1258”

(doc. # 15-25-0061-04)

Pooria and Carlos have some questions and group will come back to this document later.

Riku Pirhonen (NXP) presented “Comment resolution 963”

(doc. # 15-25-0066-00)

Carl finds proposed text changes not clear and break the existing standard. Riku will revise and come back Thursday.

Riku Pirhonen (NXP) presented “Comment resolution - Non-interleaved mode 952, 953, 97, 954, 955, 956, 959”

(doc. # 15-24-0633-01)

There were objections on this document. Chair processed vote by raising hand on Webex, and announced result being 10 yes 3 no 3 abstain, thus document passed. After completing the vote, there was a concern expressed that not everyone followed the instructions given by the chair with respect to when to raise their hand. The concern was noted by the chair. After discussion with the Vice Chair and further consideration, as noted prior to recess, chair has decided the result was inconclusive and will re-run the vote when resume.

Mingyu LEE (Samsung Electronics) presented “Proposed Resolution for CIDs 969 970 971 972 1012 1013 1378 1379 1380”

(doc. # 15-25-0094-00)

There were some discussions and this document will come back later.

Youngwan So (SAMSUNG) presented “Proposed comments resolutions - 1190 1191 1192 1195 1268”

(doc. # 15-25-0095-01)

There were some discussions and this document will come back later.

Since the group hasn’t completed the agenda, chair suggested to extend the meeting. A motion to extend at 06:00 PT Wed Feb 19 was made by Clint, second by Billy.

Chair recessed the call @8:15 PDT until 06:00 PT Wed Feb 19.

# Wednesday, 19 Feb 2025

**Opening**

**6:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order

**Minutes**

~25 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-05, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-08). There was no discussion on the agenda.

Youngwan So (SAMSUNG) presented “Proposed comments resolutions - Part 5”

(doc. # 15-25-0096-01)

There was no discussion regarding this document and this document is ready for approval.

Youngwan So (SAMSUNG) continued “Proposed comments resolutions - 1190 1191 1192 1195 1268”

(doc. # 15-25-0095-03)

There were some discussions and will this document will come back later.

Benjamin A. Rolfe (BCA) presented “ Draft 1.0 Proposed Comments Resolution for CIDs 745, 746, 752, 753 754”

(doc. # 15-25-0089-02)

There was no discussion regarding this document and this document is ready for approval.

Benjamin A. Rolfe (BCA) presented “ CID 1401: SIFS and LIFS”

(doc. # 15-25-0088-01)

There were some discussions.

Mingyu LEE (Samsung Electronics) quickly reviewed “Proposed comments resolutions - Misc.”

(doc. # 15-25-0097-00)

Billy decided to withdraw CID 1268.

Carlos Aldana (Meta) updated “CID 998 Resolution”

(doc. # 15-25-0091-01)

There were some discussions and objections from Bin Tian and Alex Krebs (Apple).

Aniruddh Rao (Samsung Electronics) updated “Proposed Resolution Draft 1.0 comments CID - 1251, 138, 1377, 1319, 273, 274, 1258”

(doc. # 15-25-0061-04)

There was no discussion regarding this document and this document is ready for approval.

Youngwan So (SAMSUNG) continued “Proposed comments resolutions - Part 5”

(doc. # 15-25-0096-01)

There was no discussion regarding this document and this document is ready for approval.

Riku Pirhonen (NXP) reviewed “Comment resolution 963”

(doc. # 15-25-0066-00)

There was no discussion regarding this document and this document is ready for approval.

Carlos Aldana (Meta) presented “ad-hoc discussion on LBT”

There were some discussions.

Chair recessed the call @8:10 PDT until 14:00 PT Thursday Feb 20.

# Thursday, 20 Feb 2025

**Opening**

**14:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order

**Minutes**

~25 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-05, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-08). There were some changes on the agenda.

Pooria Pakrooh (Qualcomm) presented “Resolution to CIDs 82, 83, 84, 270, 896 and 897 for 15.4ab Draft 1.0”

(doc. # 15-25-0102-00)

There was no objection to the comment resolutions as in doc. # 15-25-0102-00.

Carlos Aldana (Meta) presented “CID 1060 Proposed Resolution”

(doc. # 15-25-0101-00)

There was no objection to the comment resolutions as in doc. # 15-25-0101-00.

Riku Pirhonen (NXP) reviewed “Comment resolution - Non-interleaved mode 952, 953, 97, 954, 955, 956, 959”

(doc. # 15-24-0633-01)

The group voted for this document with Webex, and this document didn’t pass. Result: 19/7/0 (y/n/a).

Carlos Aldana (Meta) reviewed “CID 998 Resolution”

(doc. # 15-25-0091-02)

The group voted for this document with Webex, and this document didn’t pass.

Benjamin A. Rolfe (BCA) reviewed “CID 1401: SIFS and LIFS”

(doc. # 15-25-0088-01)

The group voted for this document with Webex, and this document passed. 20/5/5 (y/n/a).

Menzo Wentink (Qualcomm) presented “Multiple CCA for NB”

(doc. # 15-25-0099-00)

There were some discussions and will this document will come back later.

Alex Krebs (Apple) presented “Probability of LBT Narrowband Devices Failing FCC VLP CBP Certification (KDB 987594)”

(doc. # 15-25-0103-00)

There were some discussions

Chair recessed the call @15:03 PDT until 6:00 PDT, 25 Dec.

# Tuesday, 25 Feb 2025

**Opening**

**6:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order.

**Minutes**

About 25 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-06, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-09). There were some changes on the agenda. There was no objection to the updated agenda (doc. # 15-25-0079-10). It was approved with unanimous consent.

Chair list some documents which are already in consensus in previous meeting. There was no objection to the comment resolutions as in doc. # 15-25-0089-02, doc. # 15-25-0095-03, doc. # 15-25-0096-01, doc. # 15-25-0097-00, doc. # 15-25-0061-04.

Riku Pirhonen (NXP Semiconductors) moved to approve doc. # 15-24-0633-01, seconded by Alex Krebs (Apple).

Bin Tian (Qualcomm) proposed questions whether task group can run motion, chair say the opinion is noted.

Motion result: 18 Yes 4 No 3 Abstain, motion passed.

Riku Pirhonen (NXP Semiconductors) moved to approve doc. # 15-24-0633-01, seconded by Chaplin Clint.

Carl Murry (Qorvo) proposed objection.

Motion result: 1 Yes 10 No 14 Abstain, motion not passed. Riku withdrew the comment.

Alex Krebs (Apple) moved to approve doc. # 15-24-0094-00, seconded by Aniruddh Rao (Samsung Electronics), Carlos Aldana (Meta) and Pooria Pakrooh (Qualcomm) proposed objection.

Motion result: 20 Yes 8 No 2 Abstain, motion not passed.

There was no objection to the comment resolutions as in doc. # 15-24-0471-01.

There were some discussions regarding doc. # 15-24-0659-02, and there was no objection to the comment resolutions as in doc. # 15-24-0659-03.

Chair recessed the call @8:02 PDT until 14:00, 27 Feb PDT.

# Thursday, 27 Feb 2025

**Opening**

**14:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order

**Minutes**

About 25 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-06, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-10). There were some changes on the agenda.

Benjamin A. Rolfe (BCA et al) presented “LB207 CAD Comments Work”

(doc. # 15-25-0420-01)

There were some discussions.

Carlos Aldana (Meta) presented “KDB 987594 PSD observations”

(doc. # 15-25-0106-00)

There were some discussions.

Alex Krebs (Apple) moved to approve doc. # 15-24-0106-00, seconded by Clint Chaplin (Samsung).

Motion failed.

Alex Krebs (Apple)moved to approve doc. # 15-24-0521-06, seconded by Clint Chaplin (Samsung).

Motion failed.

Chair recessed the call @15:33 PDT until 6:00 PDT, 4 Mar.

# Tuesday, 4 Mar 2025

**Opening**

**6:00 PDT** 802.15 TG4ab Chair, Ben Rolfe (BCA), called the meeting to order.

**Minutes**

About 25 participants were noted during the duration of the call

Utilizing the meeting and agenda doc. # 15-25-0082-07, the Chair conducted the following business:

* Opening
* Reviewed IEEE Patent Policy
	+ Made call for claims with no responses
* Reviewed IEEE SA Participation Policy
* Reviewed IEEE SA Copyright Policy
* Reviewed 802 Rules

**Announcement**

Chair reviewed the proposed agenda (doc. # 15-25-0079-10). There were some changes on the agenda.

WG chair Clint Powell stated some rules, target of comment resolution group, and encouraged task group to move forward with the draft.

Vice Chair Clint Chaplin (Samsung) reviewed the status of comments. 35 comments are still without consensus. Chair and vice chair checked with commentors one by one to see whether they are willing to withdraw those comments without consensus.

Alex Krebs (Apple) withdrew CID 1397.

Ben Rolfe (BCA) withdrew CID 1321.

Billy Verso (Qorvo) withdrew 1174.

Li-Hsiang Sun (MediaTek)withdrew CID 275.

31 comments remain as without consensus.

Vice Chair Clint Chaplin (Samsung) uploaded the updated spreadsheet 0371-45 to mentor.

Billy Verso (Qorvo) moved to approve DCN 0371-45, seconded by Chaplin.

Motion result: 9 Y, 3 N, 1 A. Motion passed. 3 No from Carlos Aldana (Meta), Pooria Pakrooh (Qualcomm), and Bin Qian (Huawei). 1 Abstain from Li-Hsiang Sun (MediaTek).

There were some discussions regarding the agenda.

There was no objection to cancel the teleconference in 6 Mar.

Chair recessed the call @8:10 PDT until F2F meeting, Mar 2025, Atlanta, US.