IEEE P802.11
Wireless LANs

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| CC50 CR on U-SIG Part 1 |
| Date: 2025-03-22 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Alice Chen | Qualcomm |  |  | alicel@qti.qualcomm.com |
| Lin Yang | Qualcomm |  |  | linyang@qti.qualcomm.com |
| Sameer Vermani | Qualcomm |  |  | svverman@qti.qualcomm.com |
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Abstract

This submission contains proposed comment resolutions to comments on P802.11bn D0.1. The changes are based on P802.11bn D0.1.

The submission provides resolutions to the following CIDs in the U-SIG subclause 38.3.15.7

* 5, 6, 8, 321, 937, 938, 939, 940, 1163

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Added CID 937.

**2 CIDs in Table 38-20 (U-SIG field of a UHR TB PPDU):**

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| **CID** | **Commenter** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 5 | Jialing Li | 38.3.15.7.2 | 151.52 | Update the title of Table 9-46h to include "or UHR" as is in D0.1. Same comment to P152L24 and P155L9. | Refer to the comment. | Accepted |
| 6 | Jialing Li | 38.3.15.7.2 | 153.06 | Add the missing line in the first column of the table. Same comment to P155L6. | Refer to the comment. | Accepted |

**7 CIDs in 38.3.1.5.7.3:**

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| **CID** | **Commenter** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 937 | Wookbong Lee | 38.3.15.7.3 | 156.15 | There is no definition of eta\_Pre-UHR. Instead, eta\_Field is used. | Use correct parameter name. | Revised.Agree to use eta\_{U-SIG} and refer its definition to eq. (38-3) in 38.3.14.4. Note that the page number in the comment is wrong. The correct location is P156L15.Instruction to editor: Apply the changes marked as [#937] in 11-25/0441r2. |
| 938 | Wookbong Lee | 38.3.15.7.3 | 156.19 | eta\_UHR-ELR,U-SIG is 1. Thus, there is no additional scaling factor. | Remove "and an additional scaling factor eta\_UHR-ELR,U-SIG" | Accepted.Instruction to editor: The page number in the comment is wrong. The correct location is P157L19. |
| 939 | Wookbong Lee | 38.3.15.7.3 | 156.19 | We don't need to compare ELR PPDU with TB PPDU. In addition, there is no eta\_Pre-UHR. | Remove "Compared to the U-SIG field of a UHR TBPPDU, the U-SIG field in a UHR ELR PPDU has only one 20 MHz subchannel and a scaling factor eta\_UHR-ELR, U-SIG instead of eta\_Pre-UHR." | Accepted.Instruction to editor: The page number in the comment is wrong. The correct location is P157L19. |
| 940 | Wookbong Lee | 38.3.15.7.3 | 156.30 | Remove eta\_UHR-ELR,U-SIG in the equation (38-9), and remove definition of eta\_UHR-ELR,U-SIG below the equation. | As in comment | Revised.Agree to remove this parameter. Note that the page number in the comment is wrong. The correct location is P157L30.Instruction to editor: Apply the changes marked as [#8, #940] in 11-25/0441r2. |
| 1163 | Dong Guk Lim | 38.3.15.7.3 | 157.18 | Since the equation for U-SIG of ELR-PPDU is described in eq. 38-9, the two sentences from P157L18 do not seem to be needed. Delete it. | As the comment. | Revised.Agree that eq. (38-9) has defined the U-SIG waveform of ELR PPDU. The two sentences were added during PDT discussion for clarity. Per CIDs 321 and 939, the second sentence is removed. We’ll keep the first sentence for clarity.Instruction to editor: No change is needed. It’s been resolved in CIDs 321 and 939.  |
| 321 | Sigurd Schelstraete | 38.3.15.7.3 | 157.19 | What's the use of comparing a UHR ELR PPDU to a Trigger based PPDU. This doesn't appear necessary of useful. | Delete sentence starting with "Compared to the U-SIG field of a UHR TB PPDU ..." | Accepted |
| 8 | Jialing Li | 38.3.15.7.3 | 157.46 | "given" was not in 11-24/1977r6 PDT PHY U-SIG. The eta\_{UHR-ELR,U-SIG} parameter is only used in (38-9). Consider to remove such parameters that are not used in multiple places. | Refer to the comment. | Revised.Agree to remove this parameter.Instruction to editor: Apply the changes marked as [#8, #940] in 11-25/0441r2. |

**Instruction to editor:**

Please apply the changes in the following text to 38.3.15.7.3.

* Encoding and modulation

For a UHR MU PPDU, UHR TB PPDU and UHR ELR PPDU, the U-SIG field shall use the same encoding and modulation process as that of the U-SIG field in an EHT MU PPDU and EHT TB PPDU, as described in 36.3.12.7.3 (Encoding and modulation).

The time domain waveform for the U-SIG field of a UHR MU PPDU and a UHR TB PPDU, transmitted on transmit chain , shall be as specified in Equations (36-20) and (36-21), respectively, where the parameters  and  in both equations and  in Equation (36-21) shall be replaced by their UHR counterparts, ,  and [#937], respectively, where these parameters are defined in 38.3.14.4 and in particular, is defined in (38-3)[#937].

Compared to the U-SIG field of a UHR MU PPDU, the U-SIG field in a UHR ELR PPDU has only one 20 MHz subchannel[#938]. [#321, #939, #1163] For the U-SIG field in a UHR ELR PPDU, the BPSK constellation point assigned to the *k*-th data subcarrier of the *n*-th symbol is denoted as . The time domain waveform for the U-SIG field of a UHR ELR PPDU, transmitted on transmit chain , shall be as specified in Equation(38-9).

*

 [#8, #940]

where

 [#8, #940] is defined as in 21.3.7.5 (Definition of tone rotation).





 and  are defined in 17.3.5.10 (OFDM modulation).

Other variables in Equation(38-9) are defined in 38.3.13 (Timing-related parameters) and 38.3.14 (Mathematical description of signals).