IEEE P802.11
Wireless LANs

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| D2.0 Comment Resolution on U-SIG Part 3 |
| Date: 2022-07-14 |
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Abstract

This submission proposes resolutions for the following comments on P802.11be D2.0: Comments in 36.3.12.7.2.

NOTE – Set the Track Changes Viewing Option in the MS Word to “All Markup” to clearly see the proposed text edits.

**Revision History:**

R0: Initial version. Resolve CIDs 10744, 11211, 12069, 12847, 13988.

R1: Remove CID 13988.

# CID 10744, 12069, 12847

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 12069 | 36.3.12.7.2 | 642.14 | "The U-SIG field is designed to bring forward compatibility to the EHT preamble via the introduction of version independent fields. These are the fields that will be consistent in location and interpretation across multiple IEEE802.11 PHY clauses." With this definition, the CRC and Tail should be considered Version Independent fields. They don't carry any message but are required to be consistent in location and interpretation | Clarify whether CRC and Tail of U-SIG is version independent or not. | Revised.Agree to the comment that the CRC and Tail fields satisfy the definition of the version independent fields defined in this subclause. We revised the pargarph in P642L13-25 to clarify this. We also deleted the sentences on the bit ranges of version (in)dependent fields before each table of the U-SIG content, due to redundancy.Instruction to editor:*Please make changes for CID 12069 as shown in the following document*[*https://mentor.ieee.org/802.11/dcn/22/11-22-1100-01-00be-d2.0-comment-resolution-on-u-sig-part-3.docx*](https://mentor.ieee.org/802.11/dcn/22/11-22-1100-01-00be-d2.0-comment-resolution-on-u-sig-part-3.docx) |
| 10744 | 36.3.12.7.2 | 642.20 | The bit content in the version independent field may change in different versions such as PHY Version Identifier field. | suggest change from "bits" to "fields" in th phrase "... version independent bits followed by version dependent bits..." And, if agreed, change B0-B19 to B3-B19 on P643L14, and preferably add the clarification on "version (in)dependent bits" vs. "version (in)dependent field." | Revised.Firstly, it is fine to change “bits” to “fields” in this sentence, because “fields” is more appropriate. To unify terminologies, could also change other “version (in)dependent bits/content” to “version (in)dependent fields” and the related sentences accordingly. Secondly, disagree to change B0-B19 to B3-B19 on P643L14. The reason is the PHY Version Identifier field (B0-B2) is a version independent field, because it’s intended to be consistent in location and interpretation across multiple IEEE 802.11 PHY clauses. Note that the related sentences were deleted in the resolution of CID 12069. Lastly, the definitions of version (in)dependent fields are in P642L14-19. We further revised the text clarify what fields are version independent fields in the paragraph in P642L13-25.Instruction to editor:*Please make changes for CID 13988 as shown in the following document*[*https://mentor.ieee.org/802.11/dcn/22/11-22-1100-01-00be-d2.0-comment-resolution-on-u-sig-part-3.docx*](https://mentor.ieee.org/802.11/dcn/22/11-22-1100-01-00be-d2.0-comment-resolution-on-u-sig-part-3.docx) |
| 12847 | 36.3.12.7.2 | 642.19 | Prefer to use "fields" rather than "bits" in this sentence. | Change the sentence to "The U-SIG field includes version independent fields followed by version dependent fields." | Accepted.Instruction to editor:This CID 12847 is resolved in the resolution to CID 10744. No need to make any change. |

***Instructions to the editor:***

**Note that those changes were from previous CID resolutions and irrelated to changes addressed in this document.**

**Please make the changes to P642L13-38 as shown below for CID 10744, 12069 and 12847:**

The U-SIG field is designed to bring forward compatibility to the EHT preamble via the introduction of version independent fields. These are the fields that will be consistent in location and interpretation across multiple IEEE 802.11 PHY clauses. The intent of the version independent fields is to achieve better coexistence among IEEE 802.11 PHY clauses that are defined for 2.4, 5, and 6 GHz spectrum from Clause 36 (Extremely high throughput (EHT) PHY specification) onwards. In addition, the U-SIG field can have some version dependent fields that are fields specific to an IEEE 802.11 PHY clause. The U-SIG field includes, 5 version independent fields, i.e., PHY Version Identifier, Bandwidth, UL/DL, BSS Color and TXOP, followed by the version dependent fields, and version independent CRC and Tail fields at the end. The purpose of the PHY Version Identifier is to simplify detection for IEEE 802.11 PHY clauses that are defined for 2.4, 5, and 6 GHz spectrum from Clause 36 (Extremely high throughput (EHT) PHY specification) onwards, i.e., the value of this field is used to identify the exact PHY version starting with EHT.

The length of the U-SIG field for EHT MU PPDU and EHT TB PPDU is two OFDM symbols. For forward compatibility, EHT also defines the U-SIG field of an ER preamble while not defining an ER PPDU with the PHY Version Identifier field in the U-SIG equal to 0 (EHT) for an EHT STA. An EHT STA shall be able to decode and interpret the version independent fields in the U-SIG field of an ER preamble that may be introduced in IEEE 802.11 PHY clauses that are defined for 2.4, 5, and 6 GHz spectrum from Clause 36 (Extremely high throughput (EHT) PHY specification) onwards. Regardless of the value of the PHY Version Identifier field in U-SIG field, an EHT STA shall defer for the duration of the PPDU as defined in 36.3.22 (EHT receive procedure), report the information from the version independent fields within the RXVECTOR, and terminate the reception of the PPDU. The length of the U-SIG field for an ER preamble is four OFDM symbols.

**Please make the changes to P643L13-15 as shown below for CID 10744 and 12069:**

The U-SIG field for an EHT MU PPDU contains the fields listed in Table 36-28 (U-SIG field of an EHT MU PPDU).

**Please make the changes to P651L1-2 as shown below for CID 10744 and 12069:**

The U-SIG field for an EHT TB PPDU contains the fields listed in Table 36-31 (U-SIG field of an EHT TB PPDU).

**Please make the changes to P654L1-2 as shown below for CID 10744 and 12069:**

The U-SIG field for an ER preamble contains the fields listed in Table 36-32 (U-SIG field of an ER preamble).

# CID 11211

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 11211 | 36.3.12.7.2 | 651.28 | Table 36-31: for an arbitrary receiver that is not the triggering AP, it is impossible to implement Validate behavior for UL/DL = 0 in an EHT TB PPDU, since such a receiver relies on the combination of UL/DL=1 and and PPDU type = 0 to infer a TB PPDU in the first place. | Remove "A value of 0 is Validate." | Accepted. |