IEEE P802.11
Wireless LANs

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| LB279 Comment Resolution EHT MAC/PHY Part 4 |
| Date: 2024-01-08 |
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Abstract

This submission proposes to address the following CIDs 1005, 1085, changes are relative to Draft P802.11be\_D4.0, Draft P802.11REVme\_D4.2, and Draft P802.11bk D1.0.

Revisions:

1. Added link in resolution box

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGax Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbk Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbk Editor: Editing instructions preceded by “TGbk Editor” are instructions to the TGbk editor to modify existing material in the TGaz draft. As a result of adopting the changes, the TGbk editor will execute the instructions rather than copy them to the TGbk Draft.***

**The text preceded by “Discussion” is not part of the adopted changes.**

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| **CID** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| **1005** | 86.36 | 36.3.4.1 | The number of EHT-LTF symbols as indicated in the SIG of an EHT PPDU may be less than the actual number of EHT LTFs because of the LTF\_REP>1. Thus, the T\_EHT-PREAMBLE of equation (36-97) of TGbe D4.0 needs modification. | As in comment. One solution would be to add a dash to this list outlining impact of actual number of LTFs to T\_EHT-PREAMBLE computation. | **Rejected**The equation in (36-97) still holds, as N\_{EHT-LTF} definition according to Table 36-18 is “The number of OFDM symbols in the EHT-LTF field”.The question is more so what receivers will do if they don’t decode the NDP-A and so don’t know the correct number of “OFDM symbols in the EHT-LTF field”. |
| **1085** | 84.04 | 36.3.4.1 | "36.3.4.1 EHT Ranging NDP" is added under "36.3.4 EHT PPDU Formats". However, the regular sounding NDP is defined in a separate section 36.3.18. It may be better to treat this section (EHT Ranging NDP) in a similar way, i.e., as a subsection of 36.3 (tentatively 36.3.18a).BTW - that would make it consistent with the way HE Ranging PPDU and HE TB Ranging PPDU are included in the HE PHY Clause." | See comment | **Revised**TGbk editor, make the changes identified in document<https://mentor.ieee.org/802.11/dcn/24/11-24-0225-00-00bk-lb279-comment-resolution-eht-mac-phy-part-4.docx> |
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1. ***TGbk Editor: Change Clause 36.3 (p.84 in 11bk D1.0) as follows (Correct title and change numbering):***

36.3 EHT PHY

***Insert the following subclause after 36.3.19:***

36.3.19a EHT Ranging NDP and EHT TB Ranging NDP

36.3.19a.1 EHT Ranging NDP

The format of the EHT Ranging NDP is shown in Figure [36-18a](file:///C%3A%5CUsers%5Cnxf57284%5CDocuments%5CIEEE%5CDraft%20P802.11bk_D1.0.docx#F36o18a) (EHT ranging NDP format)



1. Figure 36-18a—EHT ranging NDP format

The EHT Ranging NDP has the following properties:

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1. ***TGbk Editor: Change Clause 36.3.4.2 (p.88 in 11bk D1.0) as follows (change numbering):***

***Insert the new subclause 36.3.19a.2 as follows (#*202305-07*)***

36.3.19a.2 EHT TB Ranging NDP

The format of an EHT TB Ranging NDP is shown in Figure [36-18e](file:///C%3A%5CUsers%5Cnxf57284%5CDocuments%5CIEEE%5CDraft%20P802.11bk_D1.0.docx#F36o18e) (EHT TB Ranging NDP format).

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1. ***TGbk Editor: Change Clause 36.3.12.10a (p.90 in 11bk D1.0) as follows (change numbering, update editor instructions):***
2. ***Insert the following subclause at the end of the 36.3.19a: (#202307-06, #202311-06, #202311-07)***

**36.3.19b EHT-LTF field using secure EHT-LTF**

**36.3.19b.1 Introduction**

The EHT-LTF field using secure EHT-LTF is similar to the EHT-LTF field, see 36.3.12.10 (EHT-LTF), with the following differences:

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1. ***TGbk Editor: Change Clause 36.3.12.10a.2 (p.91 in 11bk D1.0) as follows (change numbering):***

**36.3.19b.2 Generation of a randomized secure EHT-LTF sequence for the 320 MHz secure NDP**

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1. ***TGbk Editor: Change Clause 36.3.12.10a.3 and 4 (p.93 in 11bk D1.0) as follows (change numbering):***

**36.3.19b.3 Frequency domain windowing in EHT-LTF field using secure EHT-LTF**

The frequency domain windowing function $w\_{FD}(k)$ is applied to the subcarriers modulated with the secure EHT-LTF sequence $X\_{k,n}^{m}$, it follows the definition in subclause 27.3.18b.4 (Frequency domain windowing in HE-LTF field using secure HE-LTF), with the addition of

$$N\_{FD}=8192$$

for the bandwidth of 320 MHz.

**36.3.19b.4 Construction of secure EHT-LTF symbols**