IEEE P802.11
Wireless LANs

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| LB266 CR for 36.3.16 Transmit Requirements |
| Date: 2022.07.12 |
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Abstract

This submission contains the proposed comment resolutions of the following 6 CIDs in 22/0971 IEEE 802.11be LB266 comments, for the subclause 36.3.16 transmit requirements for PPDUs sent in response to a triggering frame.

CIDs, 10953, 10954, 10955, 11224.

Revision Notes

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| R0 | Initial revision |

## CID 10951

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| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 736.58 | 36.3.16.2 | To be consistent with the description of the AP Tx Power in 9.3.1.22.1, "in dBm" should be "in dBm/20 MHz". | as in comment | REVISED.According to the resolution of CC36 CID 7255 (https://mentor.ieee.org/802.11/dcn/21/11-21-1170-02-00be-cc36-cr-for-transmit-requirements-for-ppdus-sent-in-response-to-a-triggering-frame.docx), “dBm/20MHz” is changed into “normalized to 20 MHz and expressed in dBm” in 11be D2.0. The reason is that the unit of power should be dBm instead of dBm/xxMHz.To be consistent with the wording “normalized to 20 MHz and expressed in dBm”, the description of the AP Tx Power in 9.3.1.22.1 is revised accordingly.***Instructions to the editor:*** **Please make the changes as shown under CID 10951 in 11-22/1063r1.** |

***Instructions to the editor: please make the following changes to Line 19, Page 150 in the subclause 9.3.1.22.1 in D2.0 as shown below:***

The AP Tx Power subfield of the Common Info field indicates the AP’s combined transmit power at the transmit antenna connector of all the antennas used to transmit the triggering PPDU, normalized to 20 MHz and expressed in dBm. The transmit power $P\_{TX}$ (normalized to 20 MHz and expressed in dBm), is calculated as $P\_{TX}$= –20 + $F\_{Val}$, where $F\_{Val}$is the value of the AP Tx Power subfield. Values above 60 are reserved for the AP Tx Power subfield.

Discussion:

$Tx\_{pwr}^{AP}$ is the AP’s transmit power, normalized to 20 MHz and expressed in dBm, as indicated by the AP Tx Power subfield of the Common Info field in the Trigger frame, the encoding of which is specified in 9.3.1.22 (Trigger frame format), or the AP Tx Power subfield of the TRS Control field, the encoding of which is specified in 9.2.4.6a.1 (TRS Control).

Discussion ends.

## CID 10952

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| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 737.01 | 36.3.16.2 | To be consistent with the description of the AP Tx Power in 9.3.1.22.1, "in dBm" should be "in dBm/20 MHz". | as in comment | REJECTED.According to the resolution of CC36 CID 7255 (https://mentor.ieee.org/802.11/dcn/21/11-21-1170-02-00be-cc36-cr-for-transmit-requirements-for-ppdus-sent-in-response-to-a-triggering-frame.docx), “dBm/20MHz” is changed into “normalized to 20 MHz and expressed in dBm” in 11be D2.0. The reason is that the unit of power should be dBm instead of dBm/xxMHz. |

Discussion:

$Rx\_{pwr}$ is the receive signal power, normalized to 20 MHz and expressed in dBm, at the antenna connector of the STA of the triggering PPDU.

Discussion ends.

## CID 10953

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| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 736.61 | 36.3.16.2 | Need to add the conditions to the statements before and after "or". | Change the statements after the second comma as "as, if the trigger frame does not carry a TRS control field, indicated by the AP Tx Power subfield of the Common Info field in the Trigger frame, the encoding of which is specified in 9.3.1.22 (Trigger frame format); otherwise, the AP Tx Power subfield of the TRS Control field, the encoding of which is specified in 9.2.4.6a.1 (TRS Control)." | REJECTED.The TRS Control subfield doesn’t exist in a trigger frame. Thus, it is not accurate to say “if the trigger frame does not carry a TRS control subfield”. The original intent of the commenter may be: “If the AP TX Power subfield is given by the trigger frame, it indicates that the trigger frame containing the corresponding AID of the user is sent to that user. If the AP TX Power subfield is given by the TRS Control subfield, it indicates that a frame containing the TRS Control subfield is sent to the user.” Because the sentence being commented in this subclause is used to describe the definition of $Tx\_{pwr}^{AP}$ instead of telling when the STA uses the trigger frame and when the STA uses the TRS control subfield, it is more natural to keep the existing format, which is the same as in 802.11ax-2021. More details can be found in 26.5.2 UL MU operation and 35.5.2 EHT UL MU operation of 802.11be Draft 2.0. |

Discussion:

**The corresponding sentence in D2.0 is shown below:**

$Tx\_{pwr}^{AP}$ is the AP’s transmit power, normalized to 20 MHz and expressed in dBm, as indicated by the AP Tx Power subfield of the Common Info field in the Trigger frame, the encoding of which is specified in 9.3.1.22 (Trigger frame format), or the AP Tx Power subfield of the TRS Control field, the encoding of which is specified in 9.2.4.6a.1 (TRS Control).

Discussion ends.

## CID 10954

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| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 736.46 | 36.3.16.2 | Need to add the conditions to the statements before and after "or". | Change the sentence to "is the expected receive signal power indicated in the UL Target Receive Power subfield in the User Info field in the Trigger frame if the trigger frame does not carry a TRS control field; otherwise, the UL Target Receive Power subfield in the TRS Control field." | REJECTED.The TRS Control subfield doesn’t exist in a trigger frame. Thus, it is not accurate to say “if the trigger frame does not carry a TRS control subfield”. The original intent of the commenter may be: “If the UL Target Receive Power subfield is given by the trigger frame, it indicates that the trigger frame containing the corresponding AID of the user is sent to that user. If the UL Target Receive Power subfield is given by the TRS Control subfield, it indicates that a frame containing the TRS Control subfield is sent to the user.”Because the sentence being commented in this subclause is used to describe the definition of $TargetRx\_{pwr}$ instead of telling when the STA uses the trigger frame and when the STA uses the TRS control subfield, it is more natural to keep the existing format, which is the same as in 802.11ax-2021. More details can be found in 26.5.2 UL MU operation and 35.5.2 EHT UL MU operation of 802.11be Draft 2.0.  |

Discussion:

**The corresponding sentence in D2.0 is shown below:**

$TargetRx\_{pwr}$ is the expected receive signal power indicated in the UL Target Receive Power subfield in the User Info field in the Trigger frame or the UL Target Receive Power subfield in the TRS Control field.

Discussion ends.

## CID 10955

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| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 736.36 | 36.3.16.2 | Indicate the unit of Tx\_pwr^STA and TargetRx\_pwr as in dBm when they are first introduced, rather later in the NOTE. | As in comment. | REVISED.Agree with the commenter.***Instructions to the editor:*** **Please make the changes as shown under CID 10955 in 11-22/1063r1.** |

***Instructions to the editor: please make the following changes to Line 736, Page 36 in the subclause 11.21.18.6.5 Threshold-based reporting phase in D0.1 as shown below:***

Otherwise, the STA calculates the transmit power $Tx\_{pwr}^{STA}$, in units of dBm, of the EHT TB PPDU for the assigned EHT-MCS using Equation (36-99).

***Instructions to the editor: please make the following changes to Line 736, Page 46 in the subclause 11.21.18.6.5 Threshold-based reporting phase in D0.1 as shown below:***

$TargetRx\_{pwr}$ is the expected receive signal power in units of dBm indicated in the UL Target Receive Power subfield in the User Info field in the Trigger frame or the UL Target Receive Power subfield in the TRS Control field.

## CID 11224

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| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 738.19 | 36.3.16.3 | After compensation, the absolute value of residual CFO error with respect to the corresponding triggering PPDU shall not exceed the following levels when measured at the 10% point of the complementary cumulative distribution function (CCDF) of CFO errors in AWGN at a received power of -60 dBm in the primary 20 MHz channel | missing word | REVISED.Instructions to the editor: The last word “channel” of the sentence is missing. It should be “primary 20 MHz channel” instead of “primary 20 MHz” |

Discussion:



Discussion ends.