IEEE P802.11
Wireless LANs

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| LB286 CR Part 2 |
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Abstract

This submission proposes to address the following CIDs 2041, 2071, 2075, 2076, 2078, 2112, 2115, 2117, 2118, 2119, 2121, 2127, 2132 (13 CIDs total) based on P802.11bk D2.0 and P802.11REVme\_D5.0.

Revisions:

1. Added CID 2041 discussed on the June 4th telecon.
2. Incorporate changes from June 11th telecon.

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| **CID** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2041 | 19.2 | 9.3.1.19 | In Table 9-54, change the text "If the Trigger frame is a Sounding Ranging Trigger frame or the Passive Sounding Ranging Trigger frame that does not assign an HE-MCS, then the assigned STA's transmit power is that used for HE-MCS 0 for an HE TB PPDU or EHT-MCS 0 for an EHT TB PPDU" to | If the Trigger frame is a Sounding Ranging Trigger frame or the Passive Sounding Ranging Trigger frame that does not assign an HE-MCS, then the assigned STA's transmit power is that used for HE-MCS 0 for an HE (TB) PPDU or EHT-MCS 0 for an EHT (TB) PPDU.As the passive case is SU PPDU | **Revise**.TGbk make changes identified in <https://mentor.ieee.org/802.11/dcn/24/11-24-0958-02-00bk-lb286-cr-part-2.docx> as shown below. |

**Discussion**:

3rd row of table 9-54 deals with transmission of an elicit PPDU by a TF when the STA is at its maximum power.

When the elicit frame is a ranging sounding NDP (i.e. a HE TB Ranging NDP, HE Ranging NDP, EHT TB Ranging NDP, EHT Ranging NDP) the frame has no reference MCS as the ranging sounding NDP does not include data modulated symbols. As a result special handing is performed where the reference maximum power is that of MCS 0 for regular ranging sounding NDP, and MCS 6 (i.e. QAM 64) for Secure LTF ranging sounding NDP.

The modifications made by 802.11az may be misinterpreted as the entire row limited to 802.11az operation, and further modification

**Resolution for CID 2041:**

**TGbk editor replace the 3rd row 3rd column of table 9-54 with the following:**

The STA transmits the TB PPDU at the STA’s maximum transmit power for the

assigned MCS.

If the eliciting trigger frame is a Sounding Ranging Trigger frame or a Passive Sounding Ranging Trigger frame, then the STA uses the maximum transmit power for HE-MCS 0 for an HE TB Ranging NDP and an HE Ranging NDP or EHT-MCS 0 for an EHT TB Ranging NDP and an EHT Ranging NDP.

If the eliciting trigger frame is a Secure Sounding Ranging Trigger frame, then the STA uses the maximum transmit power for HE-MCS 6 for an HE TB Ranging NDP or EHT-MCS 6 for an EHT TB Ranging NDP.

NOTE–The expected receive signal power is then the STA’s maximum transmit power for of the assigned HE or EHT MCS minus the path loss

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| **CID** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2071 | 20.5 | 9.3.1.22.10 | "contains a value in the range of 0 to 63 which" -- 9.2.2 already defines that all fields are unsigned integers unless stated otherwise, and it's a 6-bit field as shown in the figure, which is normative, so this is repetition | Delete the cited text | **Reject.**The text clarifies the allowed values rather then the format. Same field size could have been used with a different arbitrary range e.g. modulo 56, but its not. Furthermore definition 9.2.2 Conventions is for unsigned integer, whereas this is a modulo operation i.e. different.  |
| 2075 | 25.11 | 9.4.2.301 | EHT does not allow more than one LO, so the parenthetical is confusing | "Delete ""(single RF LO)"" after ""EHT"" in the table. At 25.17 change ""The field value of 8 specifies the STA support for 320 MHz operation as 320 MHz single RF LO using EHT format in addition to supporting 160 single RF LO, 80, 40 and 20 MHz bandwidths in HE format."" to ""The field value of 8 specifies the STA support for 320 MHz operation as 320 MHz using EHT format in addition to supporting 160 single RF LO, 80, 40 and 20 MHz bandwidths in HE format. | **Accept.** |
| 2076 | 28.02 | 9.4.2.301 | "The Max R2I NSS field indicates the maximum number of spatial streams to be used in an R2I 3 NDP for 320MHz PPDU bandwidth transmissions in the session. (#1226)" -- not clear what 0 means then | Add "The value 0 is reserved."; ditto next para | **Reject.**Value of 0 is used when there is a single spatial stream in use refer to: D2.0 P.31L.21-22 and on describing the setting of the MAX R2I NSS and MAX I2R NSS: “the Max R2I NSS field is set to the maximum number of spatial streams the ISTA is capable of receiving in the R2I NDP for a 320 MHz bandwidth minus 1” |
| 2078 | 28.02 | 9.4.2.301 | "The Max R2I NSS field indicates the maximum number of spatial streams to be used in an R2I 3 NDP for 320MHz PPDU bandwidth transmissions in the session" -- has a "minus 1" been lost? | Add "minus 1"; ditto next para | **Reject.**This is a duplicate of 2076.Value of 0 is used when there is a single spatial stream in use refer to: D2.0 P.31L.21-22 and on describing the setting of the MAX R2I NSS and MAX I2R NSS: “the Max R2I NSS field is set to the maximum number of spatial streams the ISTA is capable of receiving in the R2I NDP for a 320 MHz bandwidth minus 1” |

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| **CID** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2112 | 89.02 | 36.2.3a | "configures for the PHY 3 of a STA to demodulate an EHT Ranging NDP or an EHT TB Ranging NDP" -- not any STA, this STA. And "for the PHY" is weird | Change to "configures the PHY to be able to demodulate an EHT Ranging NDP or an EHT TB Ranging NDP" | **Accept.** |
| 2115 | 90.? | 36.3.19a | N\_TX is used 4 times, but never defined | Define N\_TX | **Revise.**Several searches were performed with various variants of the term and was not able to identify the location of N\_TX in the draft spec. However N\_TX is a parameter in the TX and RX vector and as such defined in the baseline e.g. 11be. NTX (where TX is subscript) is used in 36.3.19a, however this parameter is defined in the baseline. and well defined in 802.11be-D5.0. Should the commenter like to make changes to baseline 11be, suggest to do that directly with the relevant project.**Resolution:**TGbk editor change NTX to use italic notation .  |
| 2117 | 92.20 | 36.3.19a.1 | "If the TXVECTOR parameter SECURE\_LTF\_FLAG is equal to 0, the TXVECTOR 21 parameter NUM\_USERS is equal to 1, and all the EHT-LTF symbols belong to a single EHT-LTF 22 User Block. " -- the bit between the commas duplicates the table in 36.2.2 | Delete the bit between the commas, and the commas, and the following "and" | **Accept.**For ease of the TGbk editor the following editor instructions are provided: Change P92L20 to read: If the TXVECTOR parameter SECURE\_LTF\_FLAG is equal to 0, all the EHT-LTF symbols belong to a single EHT-LTF User Block. |
| 2118 | 92.25 | 36.3.19a.1 | Per CID 1331 "will" was supposed to be expunged but there's still one | As it says in the comment | **Revise.**TGbk editor in P802.11bk D2.0 P.92L25 replace “will be” with “is”. |
| 2119 | 93.17 | 36.3.19a.1 | "(#1337) In each EHT-LTF User Block within the EHT-LTF field, the number of transmit antennas 18 shall be" -- I still don't understand how a number of antennas applies to a User Block (which is some field) | Is this about the number of antennas used to transmit that particular field? Or about the number of antennas signalled in a field of that field? Or something else? | **Reject.**The commenter did not identify a deficiency or issue with the spec. and seems to be just seeking information.The sentence specifies that there should be a correlation between the number of Tx antennas used and the field NUM\_STS. And that this number or rank can change from one user block to another when secured LTF is used.  |

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| **CID** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2121 | 102.6 | B.4 | "(CFHE OR CFEHT):O" -- you can't be an EHT STA without also being an HE STA, can you? | Revert the addition of "OR CFEHT" (and the parens) here and elsewehere in B.4 | **Reject.**Agree that support for EHT operation also derives support of HE operation, however this is to specify component of the operation executed under EHT operation and not as part of the HE operation. |
| 2127 | 19.02 | 9.3.1.22.1 | "the assigned STA's transmit power is HE-MCS 0 for an HE TB PPDU or EHT-MCS 0 for an EHT TB PPDU. " -- makes no sense: an HE-MCS is not a transmit power. Similarly in next para | As it says in the comment | **Revise.**Related CID 2041, TGbk editor make changes identified in <https://mentor.ieee.org/802.11/dcn/24/11-24-0958-02-00bk-lb286-cr-part-2.docx> |
| 2132 | 23.34 | 9.3.1.23.4 | "soliciting 35 an HE TB PPDU or an EHT TB PPDU" -- it can't solicit anything else, but in the future it might be able to solicit another kind of TB PPDU. This insertion does no good, only potential harm | Delete the cited text | **Reject.**The intent of the requirement is to limit the formats the Report Ranging Trigger frame may solicit.  |