IEEE P802.11
Wireless LANs

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| Comment Resolution for Miscellaneous Topics |
| Date: 2021-03-29 |
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Abstract

This submission proposes resolutions for comments received on Section 32.2.4, 32.3.14 and Annex D in TGbd D1.0. The following is the list of 9 CIDs:

* 1518, 1431, 1156, 1761, 1762, 1628, 1247, 1112, 1454

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1518 | 31.2.4 | 39.45 | NON\_NGV\_10 needs to be defined | as in comment. | RevisedNON\_NGV\_10 is defined in 32.1.4 (PPDU Formats). Add reference here for clarification.11bd Editor: please see the changes in <https://mentor.ieee.org/802.11/dcn/21/11-21-0559-00-00bd-comment-resolution-for-misc-topics.docx> |
| 1431 | 31.2.4 | 39.47 | It sounds as if repetition tx is only for broadcast, but this is not actually specified | At the end of the last para add "N\_REP shall be 0 unless the PPDU only contains group addressed MPDUs." | RevisedAgree with the commenter in principle. Separate description of N\_REP setting for broadcast and non-broadcast cases.11bd Editor: please see the changes in <https://mentor.ieee.org/802.11/dcn/21/11-21-0559-00-00bd-comment-resolution-for-misc-topics.docx> |
| 1156 | 31.2.4 | 39.52 | The term "NON\_NGV\_10 PPDU" has not been defined | Add a definition of "NON\_NGV\_10 PPDU" or modify to "10 MHz non-NGV PPDU" | RevisedSame comment as CID1518.11bd Editor: please see the changes in <https://mentor.ieee.org/802.11/dcn/21/11-21-0559-00-00bd-comment-resolution-for-misc-topics.docx> |
| 1761 | 31.2.4 | 39.52 | What is "NON\_NGV\_10 PPDU"? | Change "This mode allows an NGV STA to repeat one NON\_NGV\_10 PPDU multiple times with time gap of SIFS between every two transmissions." to "This mode allows an NGV STA to repeat one NON\_NGV\_10 PPDU, i.e., a PPDU with the format specified in Clause 17 (Orthogonal frequency division multiplexing (OFDM) PHY specification) for 10 MHz channel spacing (see 32.1.4 (PPDU Formats)), multiple times with SIFS separation." | RevisedSimilar comment as CID1518.11bd Editor: please see the changes in <https://mentor.ieee.org/802.11/dcn/21/11-21-0559-00-00bd-comment-resolution-for-misc-topics.docx> |
| 1762 | 31.2.4 | 39.53 | The actual element should be "number of repetitions". It should be mentioned in the sentence. | Change "The number of repetition of NON\_NGV\_10 PPDU is decided by upper layer and indicated through radio environment request vector (Clause 5.3.1 (Radio Environment Request Vector) in MAC SAP." to "The number of repetition of NON\_NGV\_10 PPDU is decided by the upper layer and indicated through radio environment request vector (Clause 5.3.1 (Radio Environment Request Vector) in MAC SAP by the number of repetitions element." | RevisedAdd the “number of repetions element” in the sentence.11bd Editor: please see the changes in <https://mentor.ieee.org/802.11/dcn/21/11-21-0559-00-00bd-comment-resolution-for-misc-topics.docx> |
| 1628 | 31.2.4 | 40.22 | Line 22 reads "which CCA on secondary 10 MHz channel has been idle and that is less than." Less than what? | replace "less than." by "less than 10 MHz." | RevisedSimilar comments (CID1152) has been resolved in the following CR document:<https://mentor.ieee.org/802.11/dcn/21/11-21-0431-01-00bd-11bd-d1-0-comment-resolution-31-2-5.docx>11bd Editor: No further changes are needed. |
| 1247 | 32.3.14 | 86.36 | the draft includes two TBDs both are in figure 32-15. | decide whether padding is needed or not for the PPDU and the resulting MAC data unit presumably an A/MPDU or Data unit. | RevisedSimilar comments (CID1000 and 1171) have been resolved in the following CR document:<https://mentor.ieee.org/802.11/dcn/21/11-21-0343-01-00bd-resolutions-to-32-3-13-ngv-receive-procedure.docx>11bd Editor: No further changes are needed. |
| 1112  | D.2.2 | 101.31 | If the task group insists on keeping CBW20, at least define it so that it can be used in unlicensed spectrum. Change the PPDU for CBW20 so that it uses a 3.2us DFT period. | FCC will rule on status of 5.9 band in the US the day after the ballot closes. May need to make changes to Annex D. | RejectedExisting 20 MHz NGV PPDU corresponding to CBW20 is a PPDU format that can coexist with 10 MHz NGV PPDU and 10 MHz non-NGV PPDU. The PPDU format in the comment is a sepate PPDU which is not fully discussed and has not reach any consensus within 11bd. |
| 1454 | D | 101.40 | If "Note that transmit powerclass C2 complies with the transmit power limitation of transmit power class C as listed in Table D-3" then Table D-3 need not have a C2 row added | Delete the C2 row. Also, in the cited text at 102.12 change "Note that transmit" to "Transmit" | RevisedAgree with the commenter that C2 is not a new transmit power class, but rather a new transmit spectral mask complying with transmit power class C. Remove the definition of transmit power class C2, and add spectral mask C2.11bd Editor: please see the changes in <https://mentor.ieee.org/802.11/dcn/21/11-21-0559-00-00bd-comment-resolution-for-misc-topics.docx> |

*TGbd Editor: Please make the following changes in Section 31.2.4 of D1.0.*

31.2.4 NON\_NGV\_10 repetition transmission

The NON\_NGV\_10 repetition transmission mode supports OCB broadcast service to both NGV STAs and non-NGV STAs with improved packet reception success rate. This mode allows an NGV STA to repeat one NON\_NGV\_10 PPDU, defined in 32.1.4 (PPDU Formats), multiple times with time gap of SIFS between every two transmissions. (#1518, #1156, #1761)

For a group addressed MPDU or A-MPDU, the number of repetitions of NON\_NGV\_10 PPDU is decided by upper layer and indicated by the number of repetitions element of the radio environment request vector (Clause 5.3.1 (Radio Environment Request Vector) in MAC SAP. Otherwise, the number of repetitions of NON\_NGV\_10 PPDU is fixed to 0 by MAC. The MAC sets the number of repetition, N\_REP, via the PHY service interface using the PHY-TXSTART.request(TXVECTOR) primitive, as described in Table 32-1 (TXVECTOR and RXVECTOR parameters). (#1431, #1762)

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*TGbd Editor: Please delete the changes in D.2.2*(#1454)

*TGbd Editor: Please make the following changes in D.2.3*

* Transmit spectrum mask

Transmit spectrum masks defined in regulation are subject to change or revision at any time.

For operation in the 5.85**–**5.925 GHz band the transmitted spectrum shall be as follows:

* For any STA using 5 MHz channel spacing, the transmitted spectral density shall have a 0 dBr bandwidth not exceeding 4.5 MHz and shall not exceed the spectrum mask created using the permitted power spectral density levels listed in Table D-5 (Spectrum mask data for 5 MHz channel spacing) for the transmit power class of the STA.
* For any STA using 10 MHz channel spacing, the transmitted spectral density shall have a 0 dBr bandwidth not exceeding 9 MHz and shall not exceed the spectrum mask created using the permitted power spectral density levels listed in Table D-6 (Spectrum mask data for 10 MHz channel spacing) for the transmit power class of the STA.
* For any STA using 20 MHz channel spacing complying with transmit power class A, B and D, the transmitted spectral density shall have a 0 dBr bandwidth not exceeding 18 MHz and shall not exceed the spectrum mask created using the permitted power spectral density levels listed in Table D-7 (Spectrum mask data for 20 MHz channel spacing) for the transmit power class of the STA.
1. For any STA using 20 MHz channel spacing complying with transmit power class C, two transmit spectrum masks, C and C2, are defined. The transmitted spectral density of the spectral mask C shall have a 0 dBr bandwidth not exceeding 18 MHz and shall not exceed the spectrum mask created using the permitted power spectral density levels listed in Table D-7 (Spectrum mask data for 20 MHz channel spacing). The transmitted spectral density of the spectral mask C2 shall have a 0 dBr bandwidth not exceeding 19 MHz and shall not exceed the spectrum mask created using the permitted power spectral density levels listed in Table D-8 (Spectrum mask C2 data for 20 MHz channel spacing for transmit power class C). (#1454)

*TGbd Editor: Please make the following changes in Table D-8*

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| Table D-8—Spectrum mask C2 data for 20 MHz channel spacing with transmit power class C (#1454) |
| STA transmit power class | Permitted power spectral density, dBr |
| ± 9.5 MHz offset(±f1) | ± 10.0 MHz offset(±f2) | ± 10.5 MHz offset(±f3) | ± 15 MHz offset(±f4) | ± 25 MHz offset(±f5) |
| Class C | 0 | –26 | –32 | –40 | –50 |