IEEE P802.11
Wireless LANs

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| Changes to D1.0 Clause 28.3.5 |
| Date: 2017-02-22 |
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Abstract

This submission proposes resolutions for comments of TGax Draft 1.0 with the following CIDs:

CID 4000, 4236, 4897, 5254, 8161, 8838, ~~8839~~, ~~8840~~, 8841, 9549, 10202, 10203, 10204.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Final version of the document exclude 4 CIDs.

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 TGax Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

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

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| **CID** | **Commenter** | **Clause** | **P.L.** | **Comment** | **Proposed Change** | **Resolution** |
| 4000 | Albert Petrick | 28.3.5 | 246.33 | OFDMA PPDU not clarified with HE | Add underlined text (without the underline) and remove strikethrough text from line 33 to 35 as follows:"This also includes the SU transmission in an RU that is part of a downlink or uplink HE OFDMA PPDU, and a transmission from one STA that is part of an UL MU-MIMO transmission incurrent RU. | Revised – As proposed change.TGax editor to make the changes shown in 11-17/0231r2 under all headings that include CID 4000. |
| 4236 | Albert Petrick | 28.3.5 | 246.33 | OFDMA PPDU not clarified with HE | Add underlined text (without the underline) and remove strikethrough text from line 33 to 35 as follows:"This also includes the SU transmission in an RU that is part of a downlink or uplink HE OFDMA PPDU, and a transmission from one STA that is part of an UL MU-MIMO transmission incurrent RU. | Revised – Same comment as CID 4000Duplicated comment. The comment has been addressed in CID 4000. |
| 4897 | Bin Tian | 28.3.5 | 242.62 | "Spatial and frequency mapping(PHY Motion #172)" was introduced, but there is no spatial mapping happens other than old spatial mapping block. | change to "Frequency mapping" | Revised – As proposed changeTGax editor to make the changes shown in 11-17/0231r2 under all headings that include CID 4897. |
| 5254 | Dorothy Stanley | 28.3.5 | 244.20 | Why is N\_STS <= 2 in Figure 28-10? | as in comment | Rejected – Beam change support up to 2 STS. |
| 8161 | Ming Gan | 28.3.5 | 247.44 | There is transmission block diagram for HE downlink MU-MIMO, however, it lacks of transmission block diagram for HE uplink MU-MIMO | It is not clear to transmit Uplink MU-MIMO. Add a transmission block diagram | Rejected-From transmission point of view, it’s the same as SU transmission. |
| 8838 | Sigurd Schelstraete | 28.3.5 | 243.16 | Figure 28-9 shows L-SIG, RL-SIG, HE-SIG-A. Don't' bring L-STF or L-LTF into the description. | Remove line 16 (starting at "These transmit blocks") to line 22.Similarly for lines 53 to 59. | Rejected-Beam change does affect L-STF and L-LTF, so there should be some description here. |
| 8839 | Sigurd Schelstraete | 28.3.5 | 244.31 | Don't use term "legacy preamble". | Use e.g. non-HE preamble fields | Transfer to Lochan |
| 8840 | Sigurd Schelstraete | 28.3.5 | 244.31 | "on the 20 MHz channels where the STA's HE modulated fields are located" is not clear. | Change to "on the 20 MHz channels that overlap with the RU's that are used by the HE-modulated fields" | Transfer to Ross |
| 8841 | Sigurd Schelstraete | 28.3.5 | 245.29 | Change "number of spatial stream" to "number of spatial streams" | See comment | Revised – As proposed changeTGax editor to make the changes shown in 11-17/0231r2 under all headings that include CID 8841. |
| 9549 | Yasuhiko Inoue | 28.3.5 | 249.06 | The Figure 28-17--Transmitter block diagram for the Data field of an HE SU PPDU in 80+80 MHz with LDPC encoding needs to be fixed. | Will come up with a proposed change. | RejectCommenter is fine to reject |
| 10202 | Yusuke Asai | 28.3.5 | 244.21 | For clarification, the note of "N\_STS is 2 only for HE extend rage SU PPDU." should be added. | As in comment. | Rejected –N\_STS = 2 is also applicable to non extened range SU PPDU. |
| 10203 | Yusuke Asai | 28.3.5 | 247.18 | The first and last user indices should be 0 and N\_{u-1}, respectiely. Because the user index range is defined as "u takes values 0 to NUM\_USERS-1." in Clause 28 (ex. Table 28-12). In addition, N\_u should be N\_user. | As in comment. | Revised – As proposed changeTGax editor to make the changes shown in 11-17/0231r2 under all headings that include CID 10203. |
| 10204 | Yusuke Asai | 28.3.5 | 249.08 | The input of the first IDFT on the first transmit chain of the first frequency segment shoud be connected to the output of the Spatial Mapping of the second frequency segment. | Fix it. | Revised – As proposed changeTGax editor to make the changes shown in 11-17/0231r2 under all headings that include CID 10204. |

**Propose:** Revised for CID 4000, CID 4897, CID 8841, CID 10203 per editing instructions in 11-17/0231r2.

*To the TGax Editor: modify P.L. 246.33 as following (CID 4000).*

This also includes the SU transmission in an RU that is part of a downlink or uplink HE ~~OFDMA~~ PPDU using OFDMA transmission, and a transmission from one STA that is part of an UL MU-MIMO transmission in current RU.

*To the TGax Editor: modify P.L. 242.62 as following (CID 4897).*

r) ~~Spatial and f~~ Frequency mapping

*To the TGax Editor: modify P.L. 245.29 as following (CID 8841).*

when the number of spatial streams

*To the TGax Editor: Replace figure 28-15 in P.L. 247.18 with the following (CID 10203).*



**Figure 28-15—Transmitter block diagram for the Data field of an HE downlink MU-MIMO transmission in 106-, 242-, 484- or 996-tone RU with LDPC encoding**

*To the TGax Editor: Replace figure 28-17 in P.L. 249.08 with the following (CID 10204).*



**Figure 28-17—Transmitter block diagram for the Data field of an HE SU PPDU in 80+80 MHz with
LDPC encoding.**