IEEE P802.11
Wireless LANs

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| Comment resolutions for 80, 160 and 80+80 MHz mask PPDUs |
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Abstract

This document proposes resolutions for the comments about 80, 160 and 80+80 MHz mask PPDUs.

Notes on this document:

* Comments are from: 11-11-0276-00-00ac-tgac-d0-1-comments.xls.
* Comments refer to: Draft P802.11ac\_D0.1.pdf.
* In providing instruction for spec editing, the following conventions are used.
	+ Red text indicates changes to be applied to existing text in Draft P802.11ac\_D0.1.pdf.
	+ Text in blue is text copied from the 802.11n-2009 baseline that was not shown in the 11ac draft and that need be added to the draft, with the modifications shown in green.
	+ Text in black is unmodified text from Draft P802.11ac\_D0.1.pdf.
	+ Italic light gray text indicates instruction to the editor.

Proposed Resolutions

* **Comments related to the definition of 80 MHz mask PPDU (CID 218, 219, 244, 245, 676 and 1470)**

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| 218 | Gong, Michelle | 3.2 | 3 | 39 | ER | The "40MHz transmit spectrual mask" should be "80MHz transmit spectrual mask," because this is the defintion for 80MHz maks PPDU. | Change "40" to "80" | Agree in principle. All of 80 MHz mask PPDU should be masked by 80 MHz spectral mask in clause 22. | PHY |
| 219 | Gong, Michelle | 3.2 | 3 | 43 | ER | The "40MHz transmit spectrual mask" should be "80MHz transmit spectrual mask," because this is the defintion for 80MHz maks PPDU. | Change "40" to "80" | (Duplicate comment to CID#218) | PHY |
| 244 | Hart, Brian | 3.2 | 3 | 29 | TR | "80 MHz mask PPDU" is not a great name since sometimes the mask is 40 MHz and sometimes 80 MHz. | Rename | Agree in principle. The definition of 80 MHz mask PPDU is revised.  | PHY |
| 245 | Hart, Brian | 3.2 | 3 | 37 | TR | 20 MHz PPDU yet a 40 MHz mask - seems wrong or please explain | As in comment | Agree in principle. All of 80 MHz mask PPDU should be masked by 80 MHz spectral mask in clause 22.  | PHY |
| 676 | Kneckt, Jarkko | 3.2 | 3 | 38 | TR | The paragraph talks about 20 MHz bandwidth transmission. The Spectral mask should be 20 MHz, right? | Change: 'The PPDU is transmitted using a 40 MHz transmit spectral mask defined in Clause 22.' to 'The PPDU is transmitted using a 20 MHz transmit spectral mask defined in Clause 22.'  | Disagree. All of the 80 MHz mask PPDUs should be masked by 80 MHz spectrum mask in Clause 22. | PHY |
| 1470 | Lv, Kaiying | 3.2 | 3 | 38 | TR | "the definition of ""80 MHz mask physical layer convergence procedure (PLCP) protocol data unit (PPDU):"" is not correct for the following case3) a 20 MHz non-HT, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW20 or HT\_CBW20. The PPDU is transmitted using a 40 MHz transmit spectral mask defined in Clause 22.4) a 40 MHz non-HT duplicate, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW40 or HT\_CBW40. The PPDU is transmitted using a 40 MHz transmit spectral mask defined in Clause 22." | "3) a 20 MHz non-HT, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW20 or HT\_CBW20. The PPDU is transmitted using a 40 80 MHz transmit spectral mask defined in Clause 22.4) a 40 MHz non-HT duplicate, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW40 or HT\_CBW40. The PPDU is transmitted using a 40 80 MHz transmit spectral mask defined in Clause 22." | Agree in principle. All of 80 MHz mask PPDU should be masked by 80 MHz spectral mask in Clause 22.  | PHY |

* Transmit spectra of PPDUs for 80 MHz mask PPDU in TGac Draft D0.1:

(*This figure is just for clarification and not included in the revised Draft.*)

* The proposed transmit spectra of PPDUs for 80 MHz mask PPDU for TGac Draft:

(*This figure is just for clarification and not included in the revised Draft.*)

**Proposed response to CID 218, 219, 244, 245, 676, and 1470**:

***Change the following sentences in Section 3.2 of TGac Draft D0.1:***

**80 MHz mask physical layer convergence procedure (PLCP) protocol data unit (PPDU):** One of the following PPDUs:

1) an 80 MHz VHT PPDU (TXVECTOR parameter CH\_BANDWIDTH set to HT\_CBW80);

2) an 80 MHz non-HT duplicate PPDU (TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW80);

3) a 20 MHz non-HT, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW20 or HT\_CBW20. ~~The PPDU is transmitted using a 40 MHz transmit spectral mask defined in Clause 22.~~ ;

4) a 40 MHz non-HT duplicate, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW40 or HT\_CBW40.

The PPDU is transmitted using an 80 MHz transmit spectral mask defined in Clause 22.

* **A comment to the definitions of 160 / 80+80 MHz mask PPDUs**

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| 20 | Asai, Yusuke | 3.2 | 3 | 29 | TR | In addition to "80 MHz mask physical layer convergence procedure (PLCP) protocol data unit (PPDU)", "160 MHz mask PPDU" and "80+80 MHz mask PPDU" should be also defined. | "Insert the following definitions just after just after the definition of "80MHz mask":160 MHz mask physical layer convergence procedure (PLCP) protocol data unit (PPDU): One of the following PPDUs:1) an 160 MHz VHT PPDU (TXVECTOR parameter CH\_BANDWIDTH set to HT\_CBW160);2) an 160 MHz non-HT duplicate PPDU (TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW160);3) a 20 MHz non-HT, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW20 or HT\_CBW20. The PPDU is transmitted using a 40 MHz transmit spectral mask defined in Clause 22. Or,4) a 40 MHz non-HT duplicate, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW40 or HT\_CBW40. The PPDU is transmitted using a 40 MHz transmit spectral mask defined in Clause 22. Or,5) a 80 MHz non-HT duplicate, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW80 or HT\_CBW80. The PPDU is transmitted using a 80 MHz transmit spectral mask defined in Clause 22.80+80 MHz mask physical layer convergence procedure (PLCP) protocol data unit (PPDU): One of the following PPDUs:1) an 80+80 MHz VHT PPDU (TXVECTOR parameter CH\_BANDWIDTH set to HT\_CBW80+80);2) an 80+80 MHz non-HT duplicate PPDU (TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW80+80);3) a 20 MHz non-HT, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW20 or HT\_CBW20. The PPDU is transmitted using a 40 MHz transmit spectral mask defined in Clause 22. Or,4) a 40 MHz non-HT duplicate, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW40 or HT\_CBW40. The PPDU is transmitted using a 40 MHz transmit spectral mask defined in Clause 22. Or,5) a 80 MHz non-HT duplicate, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW80 or HT\_CBW80. The PPDU is transmitted using a 80 MHz transmit spectral mask defined in Clause 22." | Agree in principle. The definitions of 160 and 80+80 MHz mask PPDU shall be added.  | PHY |

* Transmit spectra of PPDUs for 160 MHz mask PPDU for TGac Draft:

(*This figure is just for clarification and not included in the revised Draft.*)

* The proposed transmit spectra of PPDUs for 80+80 MHz mask PPDU for TGac Draft:

(*This figure is just for clarification and not included in the revised Draft.*)

**Proposed response to CID 20:**

***Add the following sentences in Section 3.2 of TGac Draft D0.1 (P3L44):***

**160 MHz mask physical layer convergence procedure (PLCP) protocol data unit (PPDU):** One of the following PPDUs:

1. a 160 MHz VHT PPDU (TXVECTOR parameter CH\_BANDWIDTH set to HT\_CBW160);
2. a 160 MHz non-HT duplicate PPDU (TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW160);
3. a 20 MHz non-HT, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW20 or HT\_CBW20;
4. a 40 MHz non-HT duplicate, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW40 or HT\_CBW40, or,
5. an 80 MHz non-HT duplicate or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW80 or HT\_CBW80.

The PPDU is transmitted using a 160 MHz transmit spectral mask defined in Clause 22.

**80+80 MHz mask physical layer convergence procedure (PLCP) protocol data unit (PPDU):** One of the following PPDUs:

1. an 80+80 MHz VHT PPDU (TXVECTOR parameter CH\_BANDWIDTH set to HT\_CBW80+80);
2. an 80+80 MHz non-HT duplicate PPDU (TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW80+80);
3. a 20 MHz non-HT, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW20 or HT\_CBW20;
4. a 40 MHz non-HT duplicate, HT or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW40 or HT\_CBW40; or,
5. an 80 MHz non-HT duplicate or VHT PPDU with the TXVECTOR parameter CH\_BANDWIDTH set to NON\_HT\_CBW80 or HT\_CBW80.

The PPDU is transmitted using an 80+80 MHz transmit spectral mask defined in Clause 22.

**References:**