IEEE P802.11  
Wireless LANs

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| Draft 1.1 Comment Resolutions for Section 22.2.2 | | | | |
| Date: 2011-09-20 | | | | |
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Abstract

This document proposes resolutions to CIDs 2204, 2346, 3723, 2351, 3596, 2206, 2051, and 2354.

The comments are copied from 11/907r7.

The resolutions are based on Draft P802.11ac\_D1.1 and Draft P802.11REVmb\_D10.1.

R1 includes changes to CID 3596 only as this CID didn’t pass during a motion in the Sept. 2011 meeting (using track changes to indicate the changes).

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2204 | 108.15 | 22.2.2 | It states "Allowed values depends on the value of the NON\_HT\_MODULATION parameter". In fact the values are the same for all valid values of NON\_HT\_MODULATION | Simply state "The allowed values are 6,9,12,18,24,36,48 and 54" | ACCEPT IN PRINCIPLE. Duplicate of CID 3389; already solved in Draft 1.1. |

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2346 | 107.47 | 22.2.2 | NON\_HT … clause 19 | NON\_HT … clause 17 [this is due to e.g. 22.2.4] | ACCEPT. See 11/1313r0. |

**Resolution:**

*Editor, change the line in the value field of parameter FORMAT in Table 22-1 as follows:*

NON\_HT indicates Clause 1~~7~~8 (Orthogonal frequency division multiplexing (OFDM) PHY specification)(#2050) or non-HT duplicated PPDU format. In this case, the modulation is determined by the NON\_HT\_MODULATION parameter.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 3723 | 108.12 | 22.2.2 | Why is L-length for VHT format not present ? | Clarify ? | ACCEPT IN PRINCIPLE. See 11/1313r0. |

**Resolution:**

*Editor, in Table 22-1 add the following note to the value field of parameter L\_LENGTH and condition FORMAT is VHT:*

NOTE – the Length field of the L-SIG in VHT PPDUs is derived from the TXTIME parameter returned by the PLME-TXTIME.confirm primitive.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2351 | 108.24 | 22.2.2 | Shouldn't "CHAN\_MAT\_TYPE/HT\_GF/MM be "see corresponding entry in table 19"? Ditto HT\_GF/MM for STBC, MCS, REC\_MCS, CH\_BANDWIDTH? | As in comment | ACCEPT IN PRINCIPLE. See 11/1313r0. |

**Discussion:**

This is already taken care of in Draft 1.1 for CHAN\_MAT\_TYPE, STBC, MCS, and REC\_MCS. CH\_BANDWIDTH still to be done.

**Resolution:**

*Editor, in Table22-1 for parameter CH\_BANDWIDTH, change the value field for condition FORMAT is HT\_MF or HT\_GF to*

See corresponding entry in Table 20-1.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 3596 | 109.32 | 22.2.2 | This line tells me that the compressed steering vectors are emitted with every received VHT PPDU. Is this necessary, seeing as only the NDP needs this. | Add some note indicating that it is mandatory for received NDP, optional otherwise. | ACCEPT IN PRINCIPLE. See 11/1313r1. |

**Discussion:**

In case the PHY stores the feedback, also for, e.g., beamforming report poll frames the CHAN\_MAT\_TYPE and corresponding fields should be present. Since the PHY cannot tell a PPDU carries a poll frame, CHAN\_MAT\_TYPE and corresponding fields should be present always.

Having said that, a similar observation could be made for the DELTA\_SNR. There it is mentioned that it is only present for a feedback frame, but that is in error, because in that case the entire PSDU goes to the MAC and the MAC reads out the fields. I would say the DELTA\_SNR at least is present after receiving an NDP following an NDPA requesting MU feedback. It can stay optional, however, because for SU feedback it isn’t present.

**Resolution:**

*Editor, in Table 22-1 change the value field of parameter DELTA\_SNR for condition FORMAT is VHT as follows:*

~~If receiving a beamforming feedback frame in which the Feedback Type subfield in the VHT MIMO Control field indicates(#3354) MU, c~~Contains a set of delta SNR values(#2352) for each space-time stream for a subset of the subcarriers as defined in 8.4.1.48 (MU Exclusive Beamforming Report field) if the Feedback Type subfield in the STA Info field for the STA in the NDPA preceding the last received NDP indicates(#3354) MU. Not present otherwise.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2206 | 110.18 | 22.2.2 | replace "SNR per stream" by "SNR per spatial stream" |  | ACCEPT. See 11/1313r0. |

**Resolution:**

*Editor, in Table 22-1 change the following line in the value field for parameter SNR and condition FORMAT is VHT and CHAN\_MAT\_TYPE is COMPRESSED\_SV as follows*

Is a measure of the received SNR per spatial stream.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2051 | 110.48 | 22.2.2 | The value of 1 indicates STBC is used and should be defined explicitly. | Change "1 indicates N\_STS = 2N\_SS." to "1 indicates STBC is used (N\_STS = 2N\_SS)." | ACCEPT. See 11/1313r0. |

**Resolution:**

*Editor, in Table 22-1 change the following line in the value field for parameter STBC and condition FORMAT is VHT as follows*

1 indicates STBC is used (*NSTS*=2*NSS*).

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2354 | 110.55 | 22.2.2 | For clarity, replace " short GI is [not] used in the packet" by "short GI is [not] used in the Data field of the packet" | As in comment | ACCEPT IN PRINCIPLE. See 11/1313r0. |

**Resolution:**

*Editor, in Table 22-1 change the value field for parameter GI\_TYPE and condition FORMAT is HT\_MF, HT\_GF or VHT as follows*

Indicates whether a short guard interval is used in the ~~transmission~~Data field of the packet.

Enumerated type:

LONG\_GI indicates short GI is not used in the Data field of the packet.

SHORT\_GI indicates short GI is used in the Data field of the packet.