IEEE P802.11  
Wireless LANs

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| LB189 D2.0 11af Comment Resolutions on MCS Table | | | | |
| Date: 2012-11-12 | | | | |
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*Abstract: Resolutions of D2.0 comments on MCS Table: CIDs 10, 11, 69*

##### CID 69 (Data rate)

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| 69 | Osama Aboulmagd | 23.5 | 258.17 | For Table 23-19 and MCS index 0, I computed the data rate for 6 and 7 MHz to be 2.25 Mbps (108/2/24usec). | Clarify and change data rates values if necessary. | **Rejected** |

**Discussions:**The current data rate is correct, for example the calculation for Long GI and BW=6/7MHz should be: Ndbps/Tsym = 54/30usec = 1.8Mbps.

**Proposal: Reject CID 69**

##### CIDs 10, 11 (N\_ES)

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| 10 | Hongyuan Zhang | 23.5 | 257.37 | Need to add NES column in all the MCS tables, as in 11n and 11ac. | Add Nes column in all MCS tables, will bring a proposal | **Revised** |
| 11 | Hongyuan Zhang | 23.5 | 265.28 | In Table 23-30, for modes 4N, 4C, 4SS, if we use the same rule as in 11ac to determine NES, then MCS8 should be excluded (Nes=5), according to 11ac rules. | Either exclude MCS8, or make Nes=6 and still allow this MCS, will bring a proposal along with the previous comment. | **Revised** |

**Discussions:**Current draft specifies that Nes = 1 for all 11af rates, however in 23.1.1, there is a statement “ **All TVHT transmissions in one frequency segment shall use the 40 MHz VHT PHY defined in subclauses 22.3 (VHT PLCP sublayer), 22.4 (VHT PLME), 22.5 (Parameters for HT MCSs), and 22.6 (VHT PMD sublayer) with a sampling clock change to fit into each of the basic channel unit bandwidths.**”. This is incorrect if we force Nes=1, because in 11ac 40MHz, there are cases where Nes=2 for MCS 8,9 and Nss=4.

Propose to modify the statement in 23.1.1 and 23.5 to reflect the differentce between 11af PHY and 11ac PHY on Nes values.

**Proposal: Revised for CIDs 10 and 11. The proposed editorial instructions are included in this document as shown below.**

*TGaf Editor: Pls make the following change on page 228 lines 29~32:*

All TVHT transmissions in one frequency segment shall use the 40 MHz VHT PHY defined in subclauses 22.3 (VHT PLCP sublayer), 22.4 (VHT PLME), 22.5 (Parameters for VHT MCSs), and 22.6 (VHT PMD sublayer) with a sampling clock change to fit into each of the basic channel unit bandwidths, and with the number of encoders (NES) always being 1.

*TGaf Editor: Pls make the following change on page 257 lines 54~58:*

Sup­port for four frequency segment modes with 24 MHz, 28 MHz and 32 MHz, or 12+12 MHz, 14+14 MHz and 16+16 MHz with NSS=1…4 is optional. *~~NES~~* ~~values were chosen to yield an integer number of punctured blocks per OFDM symbol~~. Note that *NES* values are 1 for all Clause 23 modulations.