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| Section 25.5 Parameters for HE MCSs | | | | |
| Date: 2016-05-219 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Lin Yang | Qualcomm, Inc. | 5775 Morehouse Dr. San Diego, CA 92121 | +1.858.845.5220 | linyang@qti.qualcomm.com |
| Bin Tian |

# Parameters for HE MCSs

The rate-dependent parameters for 26-tone RU, 52-tone RU, 106-tone RU, 242-tone RU and non-OFDMA 20 MHz, 484-tone RU and non-OFDMA 40 MHz, 996-tone RU and non-OFDMA 80 MHz, non-OFDMA 160 MHz and 80+80 MHz *Nss* =1,…,8 are given in Table 1‑1 (HE-MCSs for TBD mandatory/optional 26-tone RU, *NSS* = 1) through Table 1‑56 (HE-MCSs for optional non-OFDMA 160/80+80MHz, *NSS* = 8). Support for HE-MCS 8, 9, 10, and 11 (when valid) is optional in all cases. HE-MCS 10 and 11 (1024 QAM) are applicable only to RU sizes equal to or larger than 242 tones (Note: Code rates and MCS indices for 1024QAM are still TBD).

Dual sub-carrier modulation (DCM) is an optional modulation scheme for any OFDMA and non OFDMA transmissions. DCM is applicable only to MCS0,1,3,4, with up to TBD number of streams, and for TBD RU sizes. A HE STA shall support single spatial stream HE-MCSs within the range HE-MCS 0 to HE-MCS 7 for all channel widths for which it has indicated support regardless of the Tx or Rx Highest Supported Long GI Data Rate subfield values in the Supported HE-MCS and NSS Set field. When more than one spatial stream is supported, the Tx or Rx Highest Supported Long GI Data Rate subfield values in the Supported HE-MCS and NSS Set field may result in a reduced HE-MCS range (cut-off) for *Nss* =2,…,8. Support for OFDMA 26-tone RU, 52-tone RU, 106-tone RU, 242-tone RU, and 996-tone RU with *Nss* =1 is TBD mandatory/optional. Support for non-OFDMA 20 MHz, 40 MHz, and 80 MHz with *Nss* =1 is mandatory. Support for more than one spatial stream is optional in all cases. Support for OFDMA and non-OFDMA 160 MHz and 80+80 MHz with *Nss* =1,…,8 is optional. *NES* values were chosen to yield an integer number of punctured blocks for each BCC encoder per OFDM symbol.

Table 1‑1 (HE-MCSs for TBD mandatory/optional 26-tone RU, NSS = 1) to Table 1‑56 (HE-MCSs for optional non-OFDMA 160 MHz and 80+80 MHz, *NSS* = 8) define HE-MCSs not only for SU transmission but also for user *u* at *r*-th RU of an MU transmission. In the case of HE-MCSs for MU transmissions, the parameters, *NSS*, *R*, *NBPSCS*, *NCBPS*, *NDBPS*, and *NES* are replaced with *NSS,r,u*, *Rr,u*, *NBPSCS,r,u*, *NCBPS,r,u*, *NDBPS,r,u*, and *NES,r,u*, respectively.

Table 1‑1 HE-MCSs for mandatory 26-tone RU, NSS = 1

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Table 1‑2 HE-MCSs for mandatory 26-tone RU, NSS = 2

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Table 1‑3 HE-MCSs for mandatory 26-tone RU, NSS = 3



Table 1‑4 HE-MCSs for mandatory 26-tone RU, NSS = 4



Table 1‑5 HE-MCSs for mandatory 26-tone RU, NSS = 5



Table 1‑6 HE-MCSs for mandatory 26-tone RU, NSS = 6



Table 1‑7 HE-MCSs for mandatory 26-tone RU, NSS = 7



Table 1‑8 HE-MCSs for mandatory 26-tone RU, NSS = 8



Table 1‑9 HE-MCSs for mandatory 52-tone RU, NSS = 1



Table 1‑10 HE-MCSs for mandatory 52-tone RU, NSS = 2



Table 1‑11 HE-MCSs for mandatory 52-tone RU, NSS = 3



Table 1‑12 HE-MCSs for mandatory 52-tone RU, NSS = 4



Table 1‑13 HE-MCSs for mandatory 52-tone RU, NSS = 5



Table 1‑14 HE-MCSs for mandatory 52-tone RU, NSS = 6



Table 1‑15 HE-MCSs for mandatory 52-tone RU, NSS = 7



Table 1‑16 HE-MCSs for mandatory 52-tone RU, NSS = 8



Table 1‑17 HE-MCSs for mandatory 106-tone RU, NSS = 1



Table 1‑18 HE-MCSs for mandatory 106-tone RU, NSS = 2



Table 1‑19 HE-MCSs for mandatory 106-tone RU, NSS = 3



Table 1‑20 HE-MCSs for mandatory 106-tone RU, NSS = 4



Table 1‑21 HE-MCSs for mandatory 106-tone RU, NSS = 5



Table 1‑22 HE-MCSs for mandatory 106-tone RU, NSS = 6



Table 1‑23 HE-MCSs for mandatory 106-tone RU, NSS = 7



Table 1‑24 HE-MCSs for mandatory 106-tone RU, NSS = 8



Table 1‑25 HE-MCSs for mandatory 242-tone RU and mandatory non-OFDMA 20MHz, NSS = 1



Table 1‑26 HE-MCSs for mandatory 242-tone RU and mandatory non-OFDMA 20MHz, NSS = 2



Table 1‑27 HE-MCSs for mandatory 242-tone RU and mandatory non-OFDMA 20MHz, NSS = 3



Table 1‑28 HE-MCSs for mandatory 242-tone RU and mandatory non-OFDMA 20MHz, NSS = 4



Table 1‑29 HE-MCSs for mandatory 242-tone RU and mandatory non-OFDMA 20MHz, NSS = 5



Table 1‑30 HE-MCSs for mandatory 242-tone RU and mandatory non-OFDMA 20MHz, NSS = 6



Table 1‑31 HE-MCSs for mandatory 242-tone RU and mandatory non-OFDMA 20MHz, NSS = 7



Table 1‑32 HE-MCSs for mandatory 242-tone RU and mandatory non-OFDMA 20MHz, NSS = 8



Table 1‑33 HE-MCSs for mandatory 484-tone RU and mandatory non-OFDMA 40MHz, NSS = 1



Table 1‑34 HE-MCSs for mandatory 484-tone RU and mandatory non-OFDMA 40MHz, NSS = 2



Table 1‑35 HE-MCSs for mandatory 484-tone RU and mandatory non-OFDMA 40MHz, NSS = 3



Table 1‑36 HE-MCSs for mandatory 484-tone RU and mandatory non-OFDMA 40MHz, NSS = 4



Table 1‑37 HE-MCSs for mandatory 484-tone RU and mandatory non-OFDMA 40MHz, NSS = 5



Table 1‑38 HE-MCSs for mandatory 484-tone RU and mandatory non-OFDMA 40MHz, NSS = 6



Table 1‑39 HE-MCSs for mandatory 484-tone RU and mandatory non-OFDMA 40MHz, NSS = 7



Table 1‑40 HE-MCSs for mandatory 484-tone RU and mandatory non-OFDMA 40MHz, NSS = 8



Table 1‑41 HE-MCSs for mandatory 996-tone RU and mandatory non-OFDMA 80MHz, NSS = 1



Table 1‑42 HE-MCSs for mandatory 996-tone RU and mandatory non-OFDMA 80MHz, NSS = 2



Table 1‑43 HE-MCSs for mandatory 996-tone RU and mandatory non-OFDMA 80MHz, NSS = 3



Table 1‑44 HE-MCSs for mandatory 996-tone RU and mandatory non-OFDMA 80MHz, NSS = 4



Table 1‑45 HE-MCSs for mandatory 996-tone RU and mandatory non-OFDMA 80MHz, NSS = 5  


Table 1‑46 HE-MCSs for mandatory 996-tone RU and mandatory non-OFDMA 80MHz, NSS = 6



Table 1‑47 HE-MCSs for mandatory 996-tone RU and mandatory non-OFDMA 80MHz, NSS = 7



Table 1‑48 HE-MCSs for mandatory 996-tone RU and mandatory non-OFDMA 80MHz, NSS = 8



Table 1‑49 HE-MCSs for optional non-OFDMA 160/80+80MHz, NSS = 1



Table 1‑50 HE-MCSs for optional non-OFDMA 160/80+80MHz, NSS = 2



Table 1‑51 HE-MCSs for optional non-OFDMA 160/80+80MHz, NSS = 3



Table 1‑52 HE-MCSs for optional non-OFDMA 160/80+80MHz, NSS = 4



Table 1‑53 HE-MCSs for optional non-OFDMA 160/80+80MHz, NSS = 5



Table 1‑54 HE-MCSs for optional non-OFDMA 160/80+80MHz, NSS = 6



Table 1‑55 HE-MCSs for optional non-OFDMA 160/80+80MHz, NSS = 7



Table 1‑56 HE-MCSs for optional non-OFDMA 160/80+80MHz, NSS = 8

