IEEE P802.11
Wireless LANs

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| Segment Parser CR on P802.11be D0.4 – part 3 |
| Date: 2021.03.22 |
| Author(s): |
| Name | Company | Address | Phone | email |
| Bo Gong | Huawei Technologies |  |  | gongbo8@hisilicon.com |
| Jianhan Liu | Mediatek |  |  | Jianhan.Liu@mediatek.com |
| Ross Jian Yu | Huawei Technologies |  |  | ross.yujian@huawei.com |
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This submission shows

* Resolution for a comment received from TGbe comment collection (TGbe Draft D0.3)
* The proposed changes are based on 11be D0.4.

The submission provides resolutions to CIDs 2993, 1588.

## CID 2993

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| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 287.1 | 36.3.12 | Some subsections are missing in data field, e.g. Pre-FEC padding process, Dual carrier modulation, Segment deparser. | Please add missing subsections | Revised(1) The pre-FEC padding process has been described in 36.3.13.3.4 of P802.11be D0.4 (or 36.3.12.3.4 of P802.11be D0.3) EHT PPDU padding process and 36.3.13.3.5 of P802.11be D0.4 (or 36.3.12.3.5 of P802.11be D0.3) Encoding process for an EHT MU PPDU. There is no need to add a separate subsection.(2) The subsections of dual carrier modulation and segment deparser are provided.**Instructions to the editor: Please make the changes as shown in 11/21-0xxxr0** |

## CID 1588

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| Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 287.01 | 36.3.12 | Segment deparser block is defined in the transmitter block diagram. A new subsection which adresses this block is also needed in the Data field section.  | Add a new subsection for segment deparser into the Data field section and describe its detail. | RevisedAgreed in principle. Reflect the detailed explanation.**Instructions to the editor: Please make the changes as shown in 11/21-0xxxr0**Note to the editor: The resolution for CID 1588 is part of the resolution for CID 2993. |

Instructions to the editor:

Please insert the subsection 36.3.13.9 Segment deparser in Line 24 Page 407 in Draft P802.11be D0.4, and insert the subsection 36.3.13.13 Dual carrier modulation in Line 46 Page 414 in Draft P802.11be D0.4.

**36.3.13.9 Segment deparser**

For a 26-, 52-, 106-, 242-, 484- and 996-tone RU, the segment deparsing is not performed and is specified in Equation (xx-xx1),

$d\_{k,i,n,r,u}=d\_{k,i,n,0,r,u}^{''}$, if $0\leq k\leq N\_{SD,total}-1$. (xx-xx1)

For a 996+484-, 996+484+242-, 2×996-, 3×996-, and 4×996-tone MRU in EHT PPDU, the frequency subblocks at the output of the LDPC tone mapper are combined into one frequency segment as specified in Equation (xx-xx2),

$d\_{k,i,n,r,u}=d\_{k-\sum\_{i=0}^{l-1}N\_{sd\\_i},i,n,l,r,u}^{''}$, if $\sum\_{i=0}^{l-1}N\_{sd\\_i}\leq k\leq \sum\_{i=0}^{l}N\_{sd\\_i}-1$, (xx-xx2)

where$ l \in \left[1,L-1\right]$, and $\sum\_{i=0}^{l-1}N\_{sd\\_i}=0$ for frequency subblock $l=0$.

**36.3.13.13 Dual carrier modulation**

DCM modulates the same information on a pair of subcarriers. DCM is a modulation scheme for EHT-SIG and Data fields, which is applied for EHT-MCSs 14 and 15. For EHT-MCS 14, DCM is applicable in an EHT DUP mode, which is specified in 36.3.5 (EHT duplicate transmission) and 36.3.13.10 (Frequency domain duplication). For EHT-MCS 15, DCM is combined with BPSK and rate-1/2 coding, which is only applicable to the single spatial stream scenario.

DCM is mandatory in 26-, 52-, 106-, and 242-tone RUs for 20 MHz-only STAs and 26-, 52-, 106-, 242-, 484-, and 996-tone RUs for non-20 MHz-only STAs. DCM is mandatory in 2×996-tone MRU when STA supports 160 MHz, and 2×996- and 4×996-tone MRUs when STA supports 320 MHz. In addition, DCM is optional in 52+26-, 106+26-, 484+242-, 996+484-, 996+484+242-, and 3×996-tone MRUs. DCM is not supported in 2×996+484- and 3×996+484-tone MRUs.

The constellation mapper for DCM is defined in 36.3.13.7 (Constellation mapping). The LDPC tone mapper for DCM is defined in 36.3.13.8 (LDPC tone mapper). The BCC interleaver for DCM is defined in 36.3.13.6 (BCC interleavers). The segment parser for DCM is defined in 36.3.13.5 (Segment parser).