##### TP for TS 38.214 V16.1.0

##### 5.2.2.2.5 Enhanced Type II Codebook

**<**Unchanged text is omitted>

- When :

- For each subband in *csi-ReportingBand* that is not the first or last subband of a BWP, two precoding matrices are indicated by the PMI: the first precoding matrix corresponds to the first PRBs of the subband and the second precoding matrix corresponds to the last PRBs of the subband.

- For each subband in *csi-ReportingBand* that is the first or last subband of a BWP

- If , one precoding matrix is indicated by the PMI corresponding to the first subband. If , two precoding matrices are indicated by the PMI corresponding to the first subband: the first precoding matrix corresponds to the first PRBs of the first subband and the second precoding matrix corresponds to the last PRBs of the first subband.

- If , one precoding matrix is indicated by the PMI corresponding to the last subband. If , two precoding matrices are indicated by the PMI corresponding to the last subband: the first precoding matrix corresponds to the first PRBs of the last subband and the second precoding matrix corresponds to the last PRBs of the last subband.

**<**Unchanged text is omitted>

 vectors, , , are identified by (for ) and where

which are indicated by means of the indices (for ) and ( and ), , where

**<**Unchanged text is omitted>

For all values of , for . If , the nonzero elements of , identified by are found from , for , and from and , for , using as defined in Table 5.2.2.2.5-4 and the algorithm:

**<**Unchanged text is omitted>

When and are known, and are found as follows:

- If , and is not reported. If , , for , and is not reported. If , , where is given in Table 5.2.2.2.5-4 and where the indices are assigned such that increases as increases.

**<**Unchanged text is omitted>

The codebooks for 1-4 layers are given in Table 5.2.2.2.5-5, where , , for are obtained as in clause 5.2.2.2.3, and the quantities and are given by

**<**Unchanged text is omitted>

**Table 5.2.2.2.5-5: Codebook for 1-layer. 2-layer, 3-layer and 4-layer CSI reporting using antenna ports 3000 to 2999+*P*CSI‑RS**

**<**Unchanged text is omitted>

|  |
| --- |
| Where and the mappings from to , , , , , , , , and from to , , , , , and , , , and are as described above, including the ranges of the constituent indices of and .  |

**<**Unchanged text is omitted>

5.2.2.2.6 Enhanced Type II Port Selection Codebook

**<**Unchanged text is omitted>

**Table 5.2.2.2.6-2: Codebook for 1-layer. 2-layer, 3-layer and 4-layer CSI reporting using antenna ports 3000 to 2999+*P*CSI‑RS**

**<**Unchanged text is omitted>

|  |
| --- |
| Where ,and the mappings from to, , , , , and from to , , , , , and , , , and are as described above, including the ranges of the constituent indices of and .  |

**<**Unchanged text is omitted>