**FL Proposal 2.1.2A (eType1, *maxLength*=2)**

* **For the antenna ports indication in Rel.18 eType1** **DMRS ports with *maxLength* = 2 for PDSCH, at least for S-TRP case, support all rows of DMRS port combinations and Number of DMRS CDM group(s) without data in Table 7.3.1.2.2-2-X.**
  + **FFS: For row 9-11,81-83 (if agreed) in one CW, introduce MU-MIMO restriction (i.e. UE does not expect to be multiplexed with other DMRS ports in the same CDM group).**
  + **FFS: The total number of rows for eType1 DMRS ports with *maxLength* =2 for PDSCH at least for S-TRP case does not exceed 64.**

**Table 7.3.1.2.2-2-X: Antenna port(s) (1000 + DMRS port), *dmrs-Type*=eType1, *maxLength*=2**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **One Codeword:**  **Codeword 0 enabled,**  **Codeword 1 disabled** | | | | **Two Codewords:**  **Codeword 0 enabled,**  **Codeword 1 enabled** | | | |
| **Value** | **Number of DMRS CDM group(s) without data** | **DMRS port(s)** | **Number of front-load symbols** | **Value** | **Number of DMRS CDM group(s) without data** | **DMRS port(s)** | **Number of front-load symbols** |
| 0 | 1 | 0 | 1 | [0 | 2 | 0-4 | 2] |
| 1 | 1 | 1 | 1 | [1 | 2 | 0,1,2,3,4,6 | 2] |
| 2 | 1 | 0,1 | 1 | [2 | 2 | 0,1,2,3,4,5,6 | 2] |
| 3 | 2 | 0 | 1 | [3 | 2 | 0,1,2,3,4,5,6,7 | 2] |
| 4 | 2 | 1 | 1 | 4 | 2 | 0,1,2,3,8 | 1 |
| 5 | 2 | 2 | 1 | 5 | 2 | 0,1,2,3,8,10 | 1 |
| 6 | 2 | 3 | 1 | 6 | 2 | 0,1,2,3,8,9,10 | 1 |
| 7 | 2 | 0,1 | 1 | 7 | 2 | 0,1,2,3,8,9,10,11 | 1 |
| [8 | 2 | 2,3 | 1] | [8 | 1 | 0,1,4,5,8 | 2] |
| [9 | 2 | 0-2 | 1] | [9 | 1 | 0,1,4,5,8,12 | 2] |
| [10 | 2 | 0-3 | 1] | [10 | 1 | 0,1,4,5,8,9,12 | 2] |
| [11 | 2 | 0,2 | 1] | [11 | 1 | 0,1,4,5,8,9,12,13 | 2] |
| 12 | 2 | 0 | 2 | [12 | 2 | 0,1,4,5,8 | 2] |
| 13 | 2 | 1 | 2 | [13 | 2 | 0,1,4,5,8,12 | 2] |
| 14 | 2 | 2 | 2 | [14 | 2 | 0,1,4,5,8,9,12 | 2] |
| 15 | 2 | 3 | 2 | [15 | 2 | 0,1,4,5,8,9,12,13 | 2] |
| 16 | 2 | 4 | 2 | [16 | 2 | 2,3,6,7,10 | 2] |
| 17 | 2 | 5 | 2 | [17 | 2 | 2,3,6,7,10,14 | 2] |
| 18 | 2 | 6 | 2 | [18 | 2 | 2,3,6,7,10,11,14 | 2] |
| 19 | 2 | 7 | 2 | [19 | 2 | 2,3,6,7,10,11,14,15 | 2] |
| 20 | 2 | 0,1 | 2 | [20 | 2 | 0,1, 2,3,10 | 1] |
| 21 | 2 | 2,3 | 2 | [21 | 2 | 0,1,8,2,3,10 | 1] |
| 22 | 2 | 4,5 | 2 | [22 | 2 | 0,1,8, 2,3,10,11 | 1] |
| 23 | 2 | 6,7 | 2 | [23 | 2 | 0,1,8,9,2,3,10,11 | 1] |
| [24 | 2 | 0,4 | 2] | [24 | 1 | 0,1,4,5,12 | 2] |
| [25 | 2 | 2,6 | 2] | [25 | 1 | 0,1,8,4,5,12 | 2] |
| [26 | 2 | 0,1,4 | 2] | [26 | 1 | 0,1,8,4,5,12,13 | 2] |
| [27 | 2 | 2,3,6 | 2] | [27 | 1 | 0,1,8,9,4,5,12,13 | 2] |
| [28 | 2 | 0,1,4,5 | 2] | [28 | 2 | 0,1,4,5,12 | 2] |
| [29 | 2 | 2,3,6,7 | 2] | [29 | 2 | 0,1,8,4,5,12 | 2] |
| [30 | 2 | 0,2,4,6 | 2] | [30 | 2 | 0,1,8,4,5,12,13 | 2] |
| 31 | 1 | 8 | 1 | [31 | 2 | 0,1,8,9,4,5,12,13 | 2] |
| 32 | 1 | 9 | 1 | [32 | 2 | 2,3,6,7,14 | 2] |
| 33 | 1 | 8,9 | 1 | [33 | 2 | 2,3,10,6,7,14 | 2] |
| 34 | 2 | 8 | 1 | [34 | 2 | 2,3,10,6,7,14,15 | 2] |
| 35 | 2 | 9 | 1 | [35 | 2 | 2,3,10,11,6,7,14,15 | 2] |
| 36 | 2 | 10 | 1 | [36 | 2 | 0,2,3,8,9 | 1] |
| 37 | 2 | 11 | 1 | [37 | 2 | 0,1,2,3,8,9 | 1] |
| 38 | 2 | 8,9 | 1 |  |  |  |  |
| 39 | 2 | 10,11 | 1 |  |  |  |  |
| ~~[40~~ | ~~2~~ | ~~8-10~~ | ~~1]~~ |  |  |  |  |
| ~~[41~~ | ~~2~~ | ~~8-11~~ | ~~1]~~ |  |  |  |  |
| ~~[42~~ | ~~2~~ | ~~8,10~~ | ~~1]~~ |  |  |  |  |
| 43 | 2 | 8 | 2 |  |  |  |  |
| 44 | 2 | 9 | 2 |  |  |  |  |
| 45 | 2 | 10 | 2 |  |  |  |  |
| 46 | 2 | 11 | 2 |  |  |  |  |
| 47 | 2 | 12 | 2 |  |  |  |  |
| 48 | 2 | 13 | 2 |  |  |  |  |
| 49 | 2 | 14 | 2 |  |  |  |  |
| 50 | 2 | 15 | 2 |  |  |  |  |
| 51 | 2 | 8,9 | 2 |  |  |  |  |
| 52 | 2 | 10,11 | 2 |  |  |  |  |
| 53 | 2 | 12,13 | 2 |  |  |  |  |
| 54 | 2 | 14,15 | 2 |  |  |  |  |
| [55 | 2 | 8,12 | 2] |  |  |  |  |
| [56 | 2 | 10,14 | 2] |  |  |  |  |
| [57 | 2 | 8,9,12 | 2] |  |  |  |  |
| [58 | 2 | 10,11,14 | 2] |  |  |  |  |
| [59 | 2 | 8,9,12,13 | 2] |  |  |  |  |
| [60 | 2 | 10,11,14,15 | 2] |  |  |  |  |
| ~~61~~ | ~~2~~ | ~~8,10,12,14~~ | ~~2~~ |  |  |  |  |
| 62 | 1 | 0,1,8 | 1 |  |  |  |  |
| 63 | 1 | 0,1,8,9 | 1 |  |  |  |  |
| 64 | 2 | 0,1,8 | 1 |  |  |  |  |
| 65 | 2 | 0,1,8,9 | 1 |  |  |  |  |
| 66 | 2 | 2,3,10 | 1 |  |  |  |  |
| 67 | 2 | 2,3,10,11 | 1 |  |  |  |  |
| [69 | 1 | 0,1,8 | 2] |  |  |  |  |
| [70 | 1 | 0,1,8,9 | 2] |  |  |  |  |
| [71 | 1 | 4,5,12 | 2] |  |  |  |  |
| [72 | 1 | 4,5,12,13 | 2] |  |  |  |  |
| [73 | 2 | 0,1,8 | 2] |  |  |  |  |
| [74 | 2 | 0,1,8,9 | 2] |  |  |  |  |
| [75 | 2 | 4,5,12 | 2] |  |  |  |  |
| [76 | 2 | 4,5,12,13 | 2] |  |  |  |  |
| [77 | 2 | 2,3,10 | 2] |  |  |  |  |
| [78 | 2 | 2,3,10,11 | 2] |  |  |  |  |
| [79 | 2 | 6,7,14 | 2] |  |  |  |  |
| [80 | 2 | 6,7,14,15 | 2] |  |  |  |  |
| [81 | 2 | 5,8,9 | 2] |  |  |  |  |
| [82 | 2 | 7,10,11 | 2] |  |  |  |  |
| [83 | 2 | 7,12,13 | 2] |  |  |  |  |

**FL Proposal 2.1.3A (eType2, *maxLength*=1)**

* **For the antenna ports indication in Rel.18 eType2** **DMRS ports with *maxLength* = 1 for PDSCH, at least for S-TRP case, support all rows of DMRS port combinations and Number of DMRS CDM group(s) without data in Table 7.3.1.2.2-3-X.**
  + **FFS: For rows 9,10,20-23,33,34,44-46,60-62 (if agreed) in one CW, introduce MU-MIMO restriction (i.e. UE does not expect to be multiplexed with other DMRS ports in the same CDM group).**

Table 7.3.1.2.2-3-X: Antenna port(s) (1000 + DMRS port), dmrs-Type=eType2, maxLength=1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **One codeword:**  **Codeword 0 enabled,**  **Codeword 1 disabled** | | | **Two codewords:**  **Codeword 0 enabled,**  **Codeword 1 enabled** | | |
| **Value** | **Number of DMRS CDM group(s) without data** | **DMRS port(s)** | **Value** | **Number of DMRS CDM group(s) without data** | **DMRS port(s)** |
| 0 | 1 | 0 | 0 | 3 | 0-4 |
| 1 | 1 | 1 | 1 | 3 | 0-5 |
| 2 | 1 | 0,1 | [2 | 3 | 12-16] |
| 3 | 2 | 0 | [3 | 3 | 12-17] |
| 4 | 2 | 1 | 4 | 2 | 0,1,2,3,12 |
| 5 | 2 | 2 | 5 | 2 | 0,1,2,3,12,14 |
| 6 | 2 | 3 | 6 | 2 | 0-3,12-14 |
| 7 | 2 | 0,1 | 7 | 2 | 0-3,12-15 |
| 8 | 2 | 2,3 | [8 | 3 | 0,1,2,3,12] |
| [9 | 2 | 0-2] | [9 | 3 | 0,1,2,3,12,14] |
| [10 | 2 | 0-3] | [10 | 3 | 0-3,12-14] |
| 11 | 3 | 0 | [11 | 3 | 0-3,12-15] |
| 12 | 3 | 1 | [12 | 2 | 0,2,3,12,13] |
| 13 | 3 | 2 | [13 | 2 | 0,1,2,3,14] |
| 14 | 3 | 3 | [14 | 2 | 0,1,12,2,3,14] |
| 15 | 3 | 4 | [15 | 2 | 0,1,12,2,3,14,15] |
| 16 | 3 | 5 | [16 | 2 | 0,1,12,13,2,3,14,15] |
| 17 | 3 | 0,1 | [17 | 2 | 0,1,2,3,14] |
| 18 | 3 | 2,3 | [18 | 2 | 0,1,12,2,3,14] |
| 19 | 3 | 4,5 | [19 | 2 | 0,1,12,2,3,14,15] |
| [20 | 3 | 0-2] | [20 | 2 | 0,1,12,13,2,3,14,15] |
| [21 | 3 | 3-5] |  |  |  |
| [22 | 3 | 0-3] |  |  |  |
| [23 | 2 | 0,2] |  |  |  |
| 24 | 1 | 12 |  |  |  |
| 25 | 1 | 13 |  |  |  |
| 26 | 1 | 12,13 |  |  |  |
| 27 | 2 | 12 |  |  |  |
| 28 | 2 | 13 |  |  |  |
| 29 | 2 | 14 |  |  |  |
| 30 | 2 | 15 |  |  |  |
| 31 | 2 | 12,13 |  |  |  |
| 32 | 2 | 14,15 |  |  |  |
| [33 | 2 | 12-14] |  |  |  |
| [34 | 2 | 12-15] |  |  |  |
| 35 | 3 | 12 |  |  |  |
| 36 | 3 | 13 |  |  |  |
| 37 | 3 | 14 |  |  |  |
| 38 | 3 | 15 |  |  |  |
| 39 | 3 | 16 |  |  |  |
| 40 | 3 | 17 |  |  |  |
| 41 | 3 | 12,13 |  |  |  |
| 42 | 3 | 14,15 |  |  |  |
| 43 | 3 | 16,17 |  |  |  |
| [44 | 3 | 12-14] |  |  |  |
| [45 | 3 | 15-17] |  |  |  |
| [46 | 3 | 12-15] |  |  |  |
| ~~[47~~ | ~~2~~ | ~~12,14]~~ |  |  |  |
| 48 | 1 | 0,1,12 |  |  |  |
| 49 | 1 | 0,1,12,13 |  |  |  |
| 50 | 2 | 0,1,12 |  |  |  |
| 51 | 2 | 0,1,12,13 |  |  |  |
| 52 | 2 | 2,3,14 |  |  |  |
| 53 | 2 | 2,3,14,15 |  |  |  |
| 54 | 3 | 0,1,12 |  |  |  |
| 55 | 3 | 0,1,12,13 |  |  |  |
| 56 | 3 | 2,3,14 |  |  |  |
| 57 | 3 | 2,3,14,15 |  |  |  |
| 58 | 3 | 4,5,16 |  |  |  |
| 59 | 3 | 4,5,16,17 |  |  |  |
| [60 | 3 | 13,15,17] |  |  |  |
| [61 | 3 | 13,15] |  |  |  |
| [62 | 2 | 13,15] |  |  |  |

**FL Proposal 2.1.4A (eType2, *maxLength*=2)**

* **For the antenna ports indication in Rel.18 eType2** **DMRS ports with *maxLength* = 2 for PDSCH, at least for S-TRP case, support all rows of DMRS port combinations and Number of DMRS CDM group(s) without data in Table 7.3.1.2.2-4-X.**
  + **FFS: For rows 9,10,20-23,67,68,78-80,153-158 (if agreed) in one CW, introduce MU-MIMO restriction (i.e. UE does not expect to be multiplexed with other DMRS ports in the same CDM group).**

Table 7.3.1.2.2-4-X: Antenna port(s) (1000 + DMRS port), dmrs-Type=eType2, maxLength=2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **One codeword:**  **Codeword 0 enabled,**  **Codeword 1 disabled** | | | | **Two Codewords:**  **Codeword 0 enabled,**  **Codeword 1 enabled** | | | |
| **Value** | **Number of DMRS CDM group(s) without data** | **DMRS port(s)** | **Number of front-load symbols** | **Value** | **Number of DMRS CDM group(s) without data** | **DMRS port(s)** | **Number of front-load symbols** |
| 0 | 1 | 0 | 1 | [0 | 3 | 0-4 | 1] |
| 1 | 1 | 1 | 1 | [1 | 3 | 0-5 | 1] |
| 2 | 1 | 0,1 | 1 | [2 | 2 | 0,1,2,3,6 | 2] |
| 3 | 2 | 0 | 1 | [3 | 2 | 0,1,2,3,6,8 | 2] |
| 4 | 2 | 1 | 1 | [4 | 2 | 0,1,2,3,6,7,8 | 2] |
| 5 | 2 | 2 | 1 | [5 | 2 | 0,1,2,3,6,7,8,9 | 2] |
| 6 | 2 | 3 | 1 | 6 | 2 | 0,1,2,3,12 | 1 |
| 7 | 2 | 0,1 | 1 | 7 | 2 | 0-3,12,14 | 1 |
| 8 | 2 | 2,3 | 1 | 8 | 2 | 0-3,12-14 | 1 |
| [9 | 2 | 0-2 | 1] | 9 | 2 | 0-3,12-15 | 1 |
| [10 | 2 | 0-3 | 1] | [10 | 3 | 0,1,2,3,12 | 1] |
| 11 | 3 | 0 | 1 | [11 | 3 | 0-3,12,14 | 1] |
| 12 | 3 | 1 | 1 | [12 | 3 | 0-3,12-14 | 1] |
| 13 | 3 | 2 | 1 | [13 | 3 | 0-3,12-15 | 1] |
| 14 | 3 | 3 | 1 | [14 | 1 | 0,1,6,7,12 | 2] |
| 15 | 3 | 4 | 1 | [15 | 1 | 0,1,6,7,12,18 | 2] |
| 16 | 3 | 5 | 1 | [16 | 1 | 0,1,6,7,12,13,18 | 2] |
| 17 | 3 | 0,1 | 1 | [17 | 1 | 0,1,6,7,12,13,18,19 | 2] |
| 18 | 3 | 2,3 | 1 | [18 | 2 | 0,1,6,7,12 | 2] |
| 19 | 3 | 4,5 | 1 | [19 | 2 | 0,1,6,7,12,18 | 2] |
| [20 | 3 | 0-2 | 1] | [20 | 2 | 0,1,6,7,12,13,18 | 2] |
| [21 | 3 | 3-5 | 1] | [21 | 2 | 0,1,6,7,12,13,18,19 | 2] |
| [22 | 3 | 0-3 | 1] | [22 | 2 | 2,3,8,9,14 | 2] |
| [23 | 2 | 0,2 | 1] | [23 | 2 | 2,3,8,9,14,20 | 2] |
| 24 | 3 | 0 | 2 | [24 | 2 | 2,3,8,9,14,15,20 | 2] |
| 25 | 3 | 1 | 2 | [25 | 2 | 2,3,8,9,14,15,20,21 | 2] |
| 26 | 3 | 2 | 2 | [26 | 3 | 0,1,6,7,12 | 2] |
| 27 | 3 | 3 | 2 | [27 | 3 | 0,1,6,7,12,18 | 2] |
| 28 | 3 | 4 | 2 | [28 | 3 | 0,1,6,7,12,13,18 | 2] |
| 29 | 3 | 5 | 2 | [29 | 3 | 0,1,6,7,12,13,18,19 | 2] |
| 30 | 3 | 6 | 2 | [30 | 3 | 2,3,8,9,14 | 2] |
| 31 | 3 | 7 | 2 | [31 | 3 | 2,3,8,9,14,20 | 2] |
| 32 | 3 | 8 | 2 | [32 | 3 | 2,3,8,9,14,15,20 | 2] |
| 33 | 3 | 9 | 2 | [33 | 3 | 2,3,8,9,14,15,20,21 | 2] |
| 34 | 3 | 10 | 2 | [34 | 3 | 4,5,10,11,16 | 2] |
| 35 | 3 | 11 | 2 | [35 | 3 | 4,5,10,11,16,22 | 2] |
| 36 | 3 | 0,1 | 2 | [36 | 3 | 4,5,10,11,16,17,22 | 2] |
| 37 | 3 | 2,3 | 2 | [37 | 3 | 4,5,10,11,16,17,22,23 | 2] |
| 38 | 3 | 4,5 | 2 | [38 | 2 | 0,1,2,3,14 | 1] |
| 39 | 3 | 6,7 | 2 | [39 | 2 | 0,1,12,2,3,14 | 1] |
| 40 | 3 | 8,9 | 2 | [40 | 2 | 0,1,12,2,3,14,15 | 1] |
| 41 | 3 | 10,11 | 2 | [41 | 2 | 0,1,12,13,2,3,14,15 | 1] |
| [42 | 3 | 0,1,6 | 2] | [42 | 3 | 0,1,2,3,14 | 1] |
| [43 | 3 | 2,3,8 | 2] | [43 | 3 | 0,1,12,2,3,14 | 1] |
| [44 | 3 | 4,5,10 | 2] | [44 | 3 | 0,1,12,2,3,14,15 | 1] |
| [45 | 3 | 0,1,6,7 | 2] | [45 | 3 | 0,1,12,13,2,3,14,15 | 1] |
| [46 | 3 | 2,3,8,9 | 2] | [46 | 1 | 0,1,6,7,18 | 2] |
| [47 | 3 | 4,5,10,11 | 2] | [47 | 1 | 0,1,12,6,7,18 | 2] |
| 48 | 1 | 0 | 2 | [48 | 1 | 0,1,12,6,7,18,19 | 2] |
| 49 | 1 | 1 | 2 | [49 | 1 | 0,1,12,13,6,7,18,19 | 2] |
| 50 | 1 | 6 | 2 | [50 | 2 | 0,1,6,7,18 | 2] |
| 51 | 1 | 7 | 2 | [51 | 2 | 0,1,12,6,7,18 | 2] |
| 52 | 1 | 0,1 | 2 | [52 | 2 | 0,1,12,6,7,18,19 | 2] |
| 53 | 1 | 6,7 | 2 | [53 | 2 | 0,1,12,13,6,7,18,19 | 2] |
| 54 | 2 | 0,1 | 2 | [54 | 2 | 2,3,8,9,20 | 2] |
| 55 | 2 | 2,3 | 2 | [55 | 2 | 2,3,14,8,9,20 | 2] |
| 56 | 2 | 6,7 | 2 | [56 | 2 | 2,3,14,8,9,20,21 | 2] |
| 57 | 2 | 8,9 | 2 | [57 | 2 | 2,3,14,15,8,9,20,21 | 2] |
| 58 | 1 | 12 | 1 | [58 | 3 | 0,1,6,7,18 | 2] |
| 59 | 1 | 13 | 1 | [59 | 3 | 0,1,12,6,7,18 | 2] |
| 60 | 1 | 12,13 | 1 | [60 | 3 | 0,1,12,6,7,18,19 | 2] |
| 61 | 2 | 12 | 1 | [61 | 3 | 0,1,12,13,6,7,18,19 | 2] |
| 62 | 2 | 13 | 1 | [62 | 3 | 2,3,8,9,20 | 2] |
| 63 | 2 | 14 | 1 | [63 | 3 | 2,3,14,8,9,20 | 2] |
| 64 | 2 | 15 | 1 | [64 | 3 | 2,3,14,8,9,20,21 | 2] |
| 65 | 2 | 12,13 | 1 | [65 | 3 | 2,3,14,15,8,9,20,21 | 2] |
| 66 | 2 | 14,15 | 1 | [66 | 3 | 4,5,10,11,22 | 2] |
| [67 | 2 | 12-14 | 1] | [67 | 3 | 4,5,16,10,11,22 | 2] |
| [68 | 2 | 12-15 | 1] | [68 | 3 | 4,5,16,10,11,22,23 | 2] |
| 69 | 3 | 12 | 1 | [69 | 3 | 4,5,16,17,10,11,22,23 | 2] |
| 70 | 3 | 13 | 1 |  |  |  |  |
| 71 | 3 | 14 | 1 |  |  |  |  |
| 72 | 3 | 15 | 1 |  |  |  |  |
| 73 | 3 | 16 | 1 |  |  |  |  |
| 74 | 3 | 17 | 1 |  |  |  |  |
| 75 | 3 | 12,13 | 1 |  |  |  |  |
| 76 | 3 | 14,15 | 1 |  |  |  |  |
| 77 | 3 | 16,17 | 1 |  |  |  |  |
| [78 | 3 | 12-14 | 1] |  |  |  |  |
| [79 | 3 | 15-17 | 1] |  |  |  |  |
| [80 | 3 | 12-15 | 1] |  |  |  |  |
| ~~[81~~ | ~~2~~ | ~~12,14~~ | ~~1]~~ |  |  |  |  |
| 82 | 3 | 12 | 2 |  |  |  |  |
| 83 | 3 | 13 | 2 |  |  |  |  |
| 84 | 3 | 14 | 2 |  |  |  |  |
| 85 | 3 | 15 | 2 |  |  |  |  |
| 86 | 3 | 16 | 2 |  |  |  |  |
| 87 | 3 | 17 | 2 |  |  |  |  |
| 88 | 3 | 18 | 2 |  |  |  |  |
| 89 | 3 | 19 | 2 |  |  |  |  |
| 90 | 3 | 20 | 2 |  |  |  |  |
| 91 | 3 | 21 | 2 |  |  |  |  |
| 92 | 3 | 22 | 2 |  |  |  |  |
| 93 | 3 | 24 | 2 |  |  |  |  |
| 94 | 3 | 12,13 | 2 |  |  |  |  |
| 95 | 3 | 14,15 | 2 |  |  |  |  |
| 96 | 3 | 16,17 | 2 |  |  |  |  |
| 97 | 3 | 18,19 | 2 |  |  |  |  |
| 98 | 3 | 20,21 | 2 |  |  |  |  |
| 99 | 3 | 22,23 | 2 |  |  |  |  |
| [100 | 3 | 12,13,18 | 2] |  |  |  |  |
| [101 | 3 | 14,15,20 | 2] |  |  |  |  |
| [102 | 3 | 16,17,22 | 2] |  |  |  |  |
| [103 | 3 | 12,13,18,19 | 2] |  |  |  |  |
| [104 | 3 | 14,15,20,21 | 2] |  |  |  |  |
| [105 | 3 | 16,17,22,23 | 2] |  |  |  |  |
| 106 | 1 | 12 | 2 |  |  |  |  |
| 107 | 1 | 13 | 2 |  |  |  |  |
| 108 | 1 | 18 | 2 |  |  |  |  |
| 109 | 1 | 19 | 2 |  |  |  |  |
| 110 | 1 | 12,13 | 2 |  |  |  |  |
| 111 | 1 | 18,19 | 2 |  |  |  |  |
| 112 | 2 | 12,13 | 2 |  |  |  |  |
| 113 | 2 | 14,15 | 2 |  |  |  |  |
| 114 | 2 | 18,19 | 2 |  |  |  |  |
| 115 | 2 | 20,21 | 2 |  |  |  |  |
| 116 | 1 | 0,1,12 | 1 |  |  |  |  |
| 117 | 1 | 0,1,12,13 | 1 |  |  |  |  |
| 118 | 2 | 0,1,12 | 1 |  |  |  |  |
| 119 | 2 | 0,1,12,13 | 1 |  |  |  |  |
| 120 | 2 | 2,3,14 | 1 |  |  |  |  |
| 121 | 2 | 2,3,14,15 | 1 |  |  |  |  |
| 122 | 3 | 0,1,12 | 1 |  |  |  |  |
| 123 | 3 | 0,1,12,13 | 1 |  |  |  |  |
| 124 | 3 | 2,3,14 | 1 |  |  |  |  |
| 125 | 3 | 2,3,14,15 | 1 |  |  |  |  |
| 126 | 3 | 4,5,16 | 1 |  |  |  |  |
| 127 | 3 | 4,5,16,17 | 1 |  |  |  |  |
| [129 | 1 | 0,1,12 | 2] |  |  |  |  |
| [130 | 1 | 0,1,12,13 | 2] |  |  |  |  |
| [131 | 1 | 6,7,18 | 2] |  |  |  |  |
| [132 | 1 | 6,7,18,19 | 2] |  |  |  |  |
| [133 | 2 | 0,1,12 | 2] |  |  |  |  |
| [134 | 2 | 0,1,12,13 | 2] |  |  |  |  |
| [135 | 2 | 6,7,18 | 2] |  |  |  |  |
| [136 | 2 | 6,7,18,19 | 2] |  |  |  |  |
| [137 | 2 | 2,3,14 | 2] |  |  |  |  |
| [138 | 2 | 2,3,14,15 | 2] |  |  |  |  |
| [139 | 2 | 8,9,20 | 2] |  |  |  |  |
| [140 | 2 | 8,9,20,21 | 2] |  |  |  |  |
| [141 | 3 | 0,1,12 | 2] |  |  |  |  |
| [142 | 3 | 0,1,12,13 | 2] |  |  |  |  |
| [143 | 3 | 6,7,18 | 2] |  |  |  |  |
| [144 | 3 | 6,7,18,19 | 2] |  |  |  |  |
| [145 | 3 | 2,3,14 | 2] |  |  |  |  |
| [146 | 3 | 2,3,14,15 | 2] |  |  |  |  |
| [147 | 3 | 8,9,20 | 2] |  |  |  |  |
| [148 | 3 | 8,9,20,21 | 2] |  |  |  |  |
| [149 | 3 | 4,5,16 | 2] |  |  |  |  |
| [150 | 3 | 4,5,16,17 | 2] |  |  |  |  |
| [151 | 3 | 10,11,22 | 2] |  |  |  |  |
| [152 | 3 | 10,11,22,23 | 2] |  |  |  |  |
| [153 | 3 | 7,12,13 | 2] |  |  |  |  |
| [154 | 3 | 9,14,15 | 2] |  |  |  |  |
| [155 | 3 | 11,16,17 | 2] |  |  |  |  |
| [156 | 3 | 9,18,19 | 2] |  |  |  |  |
| [157 | 3 | 18,19,20 | 2] |  |  |  |  |
| [158 | 3 | 21,22,23 | 2] |  |  |  |  |