**3GPP TSG-RAN WG4 Meeting # 110 *R4-2400922r1***

**Athens, GR, February 26 – March 1, 2024**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-3** | **CR** | **xxxx** | **rev** | **-** | **Current version:** | **18.4.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Draft CR for TS 38.101-3 on subclause for inter-band CA configurations with more than three bands | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE Corporation | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_CADC\_R18\_yBDL\_xBUL-Core | | | | |  | ***Date:*** | | | 2024-02-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In RAN4#109 meeting, a TP on spec structure for inter-band CA configuration tables was approved in R4-2321921 and the related guidelines were captured in TR 38.846 as below.   * All combinations having the same number of constituent bands are categorized into one sub-clause. * For two bands inter-band CA configuration table in TS 38.101-1 5.5A.3.1, a “sub-table-group” tag is suggested to be applied for the purpose of easier retrieval. * For the other inter-band CA configuration tables which have huge configurations of more than 50 pages, the big table could be split to a limited number of up to three smaller sub-tables. The sub-tables should not have less than 40 pages and the maximum number should be 3 sub-tables after the split.   With the approved guidelines, the structure of the spec for inter-band CA configurations between FR1 and FR2 should be fixed accordingly.  Note that the revisions for inter-band CA configurations between FR1 and FR2 with two bands and with three bands are submitted in R4-2400916 and R4-2400920 respectively in this meeting. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. To amend the subclause structure for inter-band CA configurations between FR1 and FR2 with four bands and with five bands. 2. To split the huge inter-band CA configuration table with four bands into two smaller sub-tables. 3. To add “sub-table” tag for four bands configurations for easy retrieval. 4. Add the missing “NOTE 2” in the table for five bands configurations. 5. To move the table notes for four bands out below the last table and add a statement prior to the notes. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The retrieval of a certain CA configuration in the spec will remain difficult. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.5A.1, 5.5A.1.3 (new), 5.5A.1.4 (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS/TR ... CR ... 38.521-3 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

### *<< Start of changes >>*

5.5A Configuration for CA

5.5A.1 Inter-band CA configurations between FR1 and FR2

Table 5.5A.1-3: Void

Table 5.5A.1-4: Void

The configurations for operating bands for CA including Band n41 also apply for the corresponding operating bands for CA with Band n90 replacing Band n41 but with otherwise identical parameters. For brevity the said configuration for operating bands for CA with Band n90 are not listed in the tables below but are covered by this specification.

The configuration tables for CA describe Bandwidth Combination Sets. Bandwidth Combination Set 4 and 5 contains all possible defined channel bandwidths for each FR1 band in the combination. The fact that BCS4 and BCS5 contains all channel bandwidths for each FR1 band does not alter if a bandwidth is mandatory or optional for a given band. Bandwidths that are identified as optional in Table 5.3.5-1 of TS 38.101-1 [2] for a given release are still optional for UEs that support BCS4 or BCS5, where the bandwidths the UE supports for each band, the maximum bandwidth and/or minimum bandwidth for the band in the band combination are indicated in the UE capabilities. Note that the minimum bandwidth is indicated only in BCS5 and BCS5 shall not be indicated together with BCS4 for a CA configuration. For inter-band CA combinations including intra-band CA and with BCS4 or BCS5 in the following configuration tables, the Bandwidth Combination Sets for the FR1 intra-band CA are BCS4 or BCS5, respectively, and the Bandwidth Combination Sets for the FR2 intra-band CA are BCS0.

### *<< Unchanged contents omitted >>*

#### 5.5A.1.3 Inter-band CA configurations between FR1 and FR2 (four bands)

##### Table 5.5A.1.3-1a

**Table 5.5A.1.3-1a: Inter-band CA configurations and bandwidth combination sets between FR1 and FR2 (four bands)**

| **NR CA configuration** | **Uplink configuration** | | **NR Band** | **Channel bandwidth (MHz) (NOTE 1)** | **Bandwidth combination set** |
| --- | --- | --- | --- | --- | --- |
| CA\_n1A-n3A-n8A-n257A | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n3A-n8A-n257G | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n3A-n8A-n257H | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n3A-n8A-n257I | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n3A-n8A-n257J | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n257 | CA\_n257J |  |
| CA\_n1A-n3A-n8A-n257K | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n257 | CA\_n257K |  |
| CA\_n1A-n3A-n8A-n257L | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n257 | CA\_n257L |  |
| CA\_n1A-n3A-n8A-n257M | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n257 | CA\_n257M |  |
| CA\_n1A-n3A-n28A-n257A | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n257A  CA\_n3A-n28A  CA\_n3A-n257A  CA\_n28A-n257A | | n1 | 5, 10, 15, 20 | 0 |
| n3 | 5, 10, 15, 20, 25, 30 |
| n28 | 5, 10, 15, 20 |
| n257 | 50, 100, 200, 400 |
| CA\_n1A-n3A-n28A-n257G | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n257A/G  CA\_n3A-n28A  CA\_n3A-n257A/G  CA\_n28A-n257A/G | | n1 | 5, 10, 15, 20 | 0 |
| n3 | 5, 10, 15, 20, 25, 30 |
| n28 | 5, 10, 15, 20 |
| n257 | CA\_n257G |
| CA\_n1A-n3A-n28A-n257H | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n257A/G/H  CA\_n3A-n28A  CA\_n3A-n257A/G/H  CA\_n28A-n257A/G/H | | n1 | 5, 10, 15, 20 | 0 |
| n3 | 5, 10, 15, 20, 25, 30 |
| n28 | 5, 10, 15, 20 |
| n257 | CA\_n257H |
| CA\_n1A-n3A-n28A-n257I | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n257A/G/H/I  CA\_n3A-n28A  CA\_n3A-n257A/G/H/I  CA\_n28A-n257A/G/H/I | | n1 | 5, 10,15, 20 | 0 |
| n3 | 5, 10, 15, 20, 25, 30 |
| n28 | 5, 10, 15, 20 |
| n257 | CA\_n257I |
| CA\_n1A-n3A-n41A-n257A | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n257A  CA\_n3A-n41A  CA\_n3A-n257A  CA\_n41A-n257A | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n3A-n41A-n257G | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n257A/G  CA\_n3A-n41A  CA\_n3A-n257A/G  CA\_n41A-n257A/G | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n3A-n41A-n257H | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n257A/G/H  CA\_n3A-n41A  CA\_n3A-n257A/G/H  CA\_n41A-n257A/G/H | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n3A-n41A-n257I | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n257A/G/H/I  CA\_n3A-n41A  CA\_n3A-n257A/G/H/I  CA\_n41A-n257A/G/H/I | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n3A-n77A-n257A | CA\_n1A-n3A  CA\_n1A-n77A  CA\_n1A-n257A  CA\_n3A-n77A  CA\_n3A-n257A  CA\_n77A-n257A | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n3A-n77A-n257G | CA\_n1A-n3A  CA\_n1A-n77A  CA\_n1A-n257A/G  CA\_n3A-n77A  CA\_n3A-n257A/G  CA\_n77A-n257A/G | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n3A-n77A-n257H | CA\_n1A-n3A  CA\_n1A-n77A  CA\_n1A-n257A/G/H  CA\_n3A-n77A  CA\_n3A-n257A/G/H  CA\_n77A-n257A/G/H | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n3A-n77A-n257I | CA\_n1A-n3A  CA\_n1A-n77A  CA\_n1A-n257A/G/H/I  CA\_n3A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n3A-n77A-n257J | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257J |  |
| CA\_n1A-n3A-n77A-n257K | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257K |  |
| CA\_n1A-n3A-n77A-n257L | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257L |  |
| CA\_n1A-n3A-n77A-n257M | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257M |  |
| CA\_n1A-n3A-n77(2A)-n257A | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n3A-n77(2A)-n257G | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n3A-n77(2A)-n257H | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n3A-n77(2A)-n257I | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n3A-n77(2A)-n257J | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257J |  |
| CA\_n1A-n3A-n77(2A)-n257K | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257K |  |
| CA\_n1A-n3A-n77(2A)-n257L | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257L |  |
| CA\_n1A-n3A-n77(2A)-n257M | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257M |  |
| CA\_n1A-n3A-n79A-n257A | CA\_n1A-n3A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n79A-n257A | | n1 | 5, 10, 15, 20 | 0 |
| n3 | 5, 10, 15, 20, 25, 30 |
| n79 | 40, 50, 60, 80, 100 |
| n257 | 50, 100, 200, 400 |
| CA\_n1A-n3A-n79A-n257G | CA\_n1A-n3A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n79A-n257A/G | | n1 | 5, 10, 15, 20 | 0 |
| n3 | 5, 10, 15, 20, 25, 30 |
| n79 | 40, 50, 60, 80, 100 |
| n257 | CA\_n257G |
| CA\_n1A-n3A-n79A-n257H | CA\_n1A-n3A  CA\_n1A-n79A  CA\_n1A-n257A/G/H CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n79A-n257A/G/H | | n1 | 5, 10, 15, 20 | 0 |
| n3 | 5, 10, 15, 20, 25 ,30 |
| n79 | 40, 50, 60, 80, 100 |
| n257 | CA\_n257H |
| CA\_n1A-n3A-n79A-n257I | CA\_n1A-n3A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | | n1 | 5, 10, 15, 20 | 0 |
| n3 | 5, 10, 15, 20, 25, 30 |
| n79 | 40, 50, 60, 80, 100 |
| n257 | CA\_n257I |
| CA\_n1A-n8A-n77A-n257A | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n8A-n77A-n257G | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n8A-n77A-n257H | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90,100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n8A-n77A-n257I | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90,100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n8A-n77A-n257J | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257J |  |
| CA\_n1A-n8A-n77A-n257K | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257K |  |
| CA\_n1A-n8A-n77A-n257L | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257L |  |
| CA\_n1A-n8A-n77A-n257M | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257M |  |
| CA\_n1A-n8A-n77(2A)-n257A | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n8A-n77(2A)-n257G | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n8A-n77(2A)-n257H | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n8A-n77(2A)-n257I | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n8A-n77(2A)-n257J | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257J |  |
| CA\_n1A-n8A-n77(2A)-n257K | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257K |  |
| CA\_n1A-n8A-n77(2A)-n257L | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257L |  |
| CA\_n1A-n8A-n77(2A)-n257M | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257M |  |
| CA\_n1A-n8A-n78A-n257A | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n8A-n78A-n257D | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257D |  |
| CA\_n1A-n8A-n78A-n257E | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257E |  |
| CA\_n1A-n8A-n78A-n257F | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257F |  |
| CA\_n1A-n8A-n78A-n257G | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n8A-n78A-n257H | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n8A-n78A-n257I | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n8A-n78A-n257J | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257J |  |
| CA\_n1A-n8A-n78A-n257K | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257K |  |
| CA\_n1A-n8A-n78A-n257L | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257L |  |
| CA\_n1A-n8A-n78A-n257M | - | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257M |  |
| CA\_n1A-n28A-n41A-n257A | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n257A  CA\_n28A-n41A  CA\_n28A-n257A  CA\_n41A-n257A | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n28 | 5, 10 |  |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n28A-n41A-n257G | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n257A/G  CA\_n28A-n41A  CA\_n28A-n257A/G  CA\_n41A-n257A/G | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n28 | 5, 10 |  |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n28A-n41A-n257H | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n257A/G/H  CA\_n28A-n41A  CA\_n28A-n257A/G/H  CA\_n41A-n257A/G/H | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n28 | 5, 10 |  |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n28A-n41A-n257I | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n257A/G/H/I  CA\_n28A-n41A  CA\_n28A-n257A/G/H/I  CA\_n41A-n257A/G/H/I | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n28 | 5, 10 |  |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n28A-n77A-n257A | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A  CA\_n28A-n77A  CA\_n28A-n257A  CA\_n77A-n257A | | n1 | 5, 10, 15, 20 | 0 |
| n28 | 5, 10, 15, 20 |
| n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |
| n257 | 50, 100, 200, 400 |
| CA\_n1A-n28A-n77A-n257G | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A/G  CA\_n28A-n77A  CA\_n28A-n257A/G  CA\_n77A-n257A/G | | n1 | 5, 10, 15, 20 | 0 |
| n28 | 5, 10, 15, 20 |
| n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |
| n257 | CA\_n257G |
| CA\_n1A-n28A-n77A-n257H | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A/G/H  CA\_n28A-n77A  CA\_n28A-n257A/G/H  CA\_n77A-n257A/G/H | | n1 | 5, 10, 15, 20 | 0 |
| n28 | 5, 10, 15, 20 |
| n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |
| n257 | CA\_n257H |
| CA\_n1A-n28A-n77A-n257I | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A/G/H/I  CA\_n28A-n77A  CA\_n28A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | | n1 | 5, 10, 15, 20 | 0 |
| n28 | 5, 10, 15, 20 |
| n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |
| n257 | CA\_n257I |
| CA\_n1A-n28A-n77(2A)-n257A | | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A  CA\_n28A-n77A  CA\_n28A-n257A  CA\_n77A-n257A | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n28 | 5, 10, 15, 20 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n28A-n77(2A)-n257G | | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A/G  CA\_n28A-n77A  CA\_n28A-n257A/G  CA\_n77A-n257A/G | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n28 | 5, 10, 15, 20 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | CA\_n257G |  |
| CA\_n1A-n28A-n77(2A)-n257H | | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A/G/H  CA\_n28A-n77A  CA\_n28A-n257A/G/H  CA\_n77A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n28 | 5, 10, 15, 20 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | CA\_n257H |  |
| CA\_n1A-n28A-n77(2A)-n257I | | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A/G/H/I  CA\_n28A-n77A  CA\_n28A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n28 | 5, 10, 15, 20 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | CA\_n257I |  |
| CA\_n1A-n28A-n79A-n257A | CA\_n1A-n28A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n79A-n257A | | n1 | 5, 10, 15, 20 | 0 |
| n28 | 5, 10, 15, 20 |
| n79 | 40, 50, 60, 80, 100 |
| n257 | 50, 100, 200, 400 |
| CA\_n1A-n28A-n79A-n257G | CA\_n1A-n28A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n79A-n257A/G | | n1 | 5, 10, 15, 20 | 0 |
| n28 | 5, 10, 15, 20 |
| n79 | 40, 50, 60, 80, 100 |
| n257 | CA\_n257G |
| CA\_n1A-n28A-n79A-n257H | CA\_n1A-n28A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n79A-n257A/G/H | | n1 | 5, 10, 15, 20 | 0 |
| n28 | 5, 10, 15, 20 |
| n79 | 40, 50, 60, 80, 100 |
| n257 | CA\_n257H |
| CA\_n1A-n28A-n79A-n257I | CA\_n1A-n28A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | | n1 | 5, 10, 15, 20 | 0 |
| n28 | 5, 10, 15, 20 |
| n79 | 40, 50, 60, 80, 100 |
| n257 | CA\_n257I |
| CA\_n1A-n41A-n77A-n257A | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n77A-n257A | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n41A-n77A-n257G | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G  CA\_n41A-n77A  CA\_n41A-n257A/G  CA\_n77A-n257A/G | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n41A-n77A-n257H | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n257A/G/H  CA\_n77A-n257A/G/H | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n41A-n77A-n257I | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n41A-n77(2A)-n257A | | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n77A-n257A | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n41A-n77(2A)-n257G | | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G  CA\_n41A-n77A  CA\_n41A-n257A/G  CA\_n77A-n257A/G | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | CA\_n257G |  |
| CA\_n1A-n41A-n77(2A)-n257H | | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n257A/G/H  CA\_n77A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | CA\_n257H |  |
| CA\_n1A-n41A-n77(2A)-n257I | | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | CA\_n257I |  |
| CA\_n1A-n41A-n79A-n257A | | CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n79A-n257A | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n41A-n79A-n257G | | CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n79A-n257A/G | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
| CA\_n1A-n41A-n79A-n257H | | CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n79A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
| CA\_n1A-n41A-n79A-n257I | | CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
| CA\_n1A-n77A-n79A-n257A | CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n77A-n79A-n257G | CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G  CA\_n257G | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n77A-n79A-n257H | CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H  CA\_n257G/H | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n77A-n79A-n257I | CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I  CA\_n257G/H/I | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n1A-n77(2A)-n79A-n257A | | CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n77(2A)-n79A-n257G | | CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
| CA\_n1A-n77(2A)-n79A-n257H | | CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
| CA\_n1A-n77(2A)-n79A-n257I | | CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
| CA\_n1A-n78A-n79A-n257A | CA\_n1A-n78A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n78A-n79A  CA\_n78A-n257A  CA\_n79A-n257A | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n78A-n79A-n257G | CA\_n1A-n78A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n79A-n257A/G  CA\_n257G | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n1A-n78A-n79A-n257H | CA\_n1A-n78A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n79A-n257A/G/H  CA\_n257G/H | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n1A-n78A-n79A-n257I | CA\_n1A-n78A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n79A-n257A/G/H/I  CA\_n257G/H/I | | n1 | 5, 10, 15, 20 | 0 |
|  |  | | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n2A-n5A-n48A-n260A | CA\_n2A-n260A  CA\_n5A-n260A  CA\_n48A-n260A | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | 50, 100, 200, 400 |  |
| CA\_n2A-n5A-n48A-n260G | CA\_n2A-n260A/G  CA\_n5A-n260A/G  CA\_n48A-n260A/G | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260G |  |
| CA\_n2A-n5A-n48A-n260H | CA\_n2A-n260A/G/H  CA\_n5A-n260A/G/H  CA\_n48A-n260A/G/H | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260H |  |
| CA\_n2A-n5A-n48A-n260I | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n48A-n260A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260I |  |
| CA\_n2A-n5A-n48A-n260J | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n48A-n260A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260J |  |
| CA\_n2A-n5A-n48A-n260K | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n48A-n260A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260K |  |
| CA\_n2A-n5A-n48A-n260L | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n48A-n260A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260L |  |
| CA\_n2A-n5A-n48A-n260M | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n48A-n260A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260M |  |
| CA\_n2A-n5A-n48A-n261A | CA\_n2A-n261A  CA\_n5A-n261A  CA\_n48A-n261A | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | 50, 100, 200, 400 |  |
| CA\_n2A-n5A-n48A-n261G | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n48A-n261A/G | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261G |  |
| CA\_n2A-n5A-n48A-n261H | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261H |  |
| CA\_n2A-n5A-n48A-n261I | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261I |  |
| CA\_n2A-n5A-n48A-n261J | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261J |  |
| CA\_n2A-n5A-n48A-n261K | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261K |  |
| CA\_n2A-n5A-n48A-n261L | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261L |  |
| CA\_n2A-n5A-n48A-n261M | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261M |  |
| CA\_n2A-n5A-n48A-n261(G-H) | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(G-H) |  |
| CA\_n2A-n5A-n48A-n261(2H) | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2H) |  |
| CA\_n2A-n5A-n48A-n261(A-G-H) | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-G-H) |  |
| CA\_n2A-n5A-n48A-n261(H-I) | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(H-I) |  |
| CA\_n2A-n5A-n48A-n261(A-G-I) | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-G-I) |  |
| CA\_n2A-n5A-n48A-n261(A-G) | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n48A-n261A/G | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-G) |  |
| CA\_n2A-n5A-n48A-n261(A-H) | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-H) |  |
| CA\_n2A-n5A-n48A-n261(A-I) | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-I) |  |
| CA\_n2A-n5A-n48A-n261(2A-G) | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n48A-n261A/G | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2A-G) |  |
| CA\_n2A-n5A-n48A-n261(2A-H) | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2A-H) |  |
| CA\_n2A-n5A-n48A-n261(2A-I) | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2A-I) |  |
| CA\_n2A-n5A-n48A-n261(A-2G) | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n48A-n261A/G | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-2G) |  |
| CA\_n2A-n5A-n48A-n261(G-I) | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(G-I) |  |
| CA\_n2A-n5A-n48A-n261(2A) | CA\_n2A-n261A  CA\_n5A-n261A  CA\_n48A-n261A | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2A) |  |
| CA\_n2A-n5A-n48A-n261(3A) | CA\_n2A-n261A  CA\_n5A-n261A  CA\_n48A-n261A | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(3A) |  |
| CA\_n2A-n5A-n48A-n261(2G) | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n48A-n261A/G | | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  |  | | n5 | 5, 10, 15, 20, 25 |  |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2G) |  |
| CA\_n2A-n5A-n66A-n260A | | CA\_n2A-n260A  CA\_n5A-n260A  CA\_n66A-n260A | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n260 | 50, 100, 200, 400 |  |
| CA\_n2A-n5A-n66A-n260G | | CA\_n2A-n260A/G  CA\_n5A-n260A/G  CA\_n66A-n260A/G | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n260 | CA\_n260G |  |
| CA\_n2A-n5A-n66A-n260H | | CA\_n2A-n260A/G/H  CA\_n5A-n260A/G/H  CA\_n66A-n260A/G/H | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n260 | CA\_n260H |  |
| CA\_n2A-n5A-n66A-n260I | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n260 | CA\_n260I |  |
| CA\_n2A-n5A-n66A-n260J | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n260 | CA\_n260J |  |
| CA\_n2A-n5A-n66A-n260K | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n260 | CA\_n260K |  |
| CA\_n2A-n5A-n66A-n260L | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n260 | CA\_n260L |  |
| CA\_n2A-n5A-n66A-n260M | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n260 | CA\_n260M |  |
| CA\_n2A-n5A-n66A-n261A | | CA\_n2A-n261A  CA\_n5A-n261A  CA\_n66A-n261A | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | 50, 100, 200, 400 |  |
| CA\_n2A-n5A-n66A-n261G | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261G |  |
| CA\_n2A-n5A-n66A-n261H | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261H |  |
| CA\_n2A-n5A-n66A-n261I | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261I |  |
| CA\_n2A-n5A-n66A-n261J | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261J |  |
| CA\_n2A-n5A-n66A-n261K | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261K |  |
| CA\_n2A-n5A-n66A-n261L | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261L |  |
| CA\_n2A-n5A-n66A-n261M | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261M |  |
| CA\_n2A-n5A-n66A-n261(A-G) | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(A-G) |  |
| CA\_n2A-n5A-n66A-n261(2A) | | CA\_n2A-n261A  CA\_n5A-n261A  CA\_n66A-n261A | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(2A) |  |
| CA\_n2A-n5A-n66A-n261(3A) | | CA\_n2A-n261A  CA\_n5A-n261A  CA\_n66A-n261A | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(3A) |  |
| CA\_n2A-n5A-n66A-n261(2G) | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(2G) |  |
| CA\_n2A-n5A-n66A-n261(A-H) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(A-H) |  |
| CA\_n2A-n5A-n66A-n261(G-H) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(G-H) |  |
| CA\_n2A-n5A-n66A-n261(2A-G) | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(2A-G) |  |
| CA\_n2A-n5A-n66A-n261(2A-H) | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(2A-H) |  |
| CA\_n2A-n5A-n66A-n261(A-2G) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(A-2G) |  |
| CA\_n2A-n5A-n66A-n261(A-G-H) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(A-G-H) |  |
| CA\_n2A-n5A-n66A-n261(A-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(A-I) |  |
| CA\_n2A-n5A-n66A-n261(G-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(G-I) |  |
| CA\_n2A-n5A-n66A-n261(2H) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(2H) |  |
| CA\_n2A-n5A-n66A-n261(2A-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(2A-I) |  |
| CA\_n2A-n5A-n66A-n261(A-G-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(A-G-I) |  |
| CA\_n2A-n5A-n66A-n261(H-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20 | 0 |
|  | |  | n5 | 5, 10, 15, 20 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 40 |  |
|  | |  | n261 | CA\_n261(H-I) |  |
| CA\_n2A-n5A-n77A-n260A | | CA\_n2A-n260A  CA\_n5A-n260A  CA\_n77A-n260A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | 50, 100, 200, 400 |  |
| CA\_n2A-n5A-n77A-n260G | | CA\_n2A-n260A/G  CA\_n5A-n260A/G  CA\_n77A-n260A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260G |  |
| CA\_n2A-n5A-n77A-n260H | | CA\_n2A-n260A/G/H  CA\_n5A-n260A/G/H  CA\_n77A-n260A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260H |  |
| CA\_n2A-n5A-n77A-n260I | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260I |  |
| CA\_n2A-n5A-n77A-n260J | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260J |  |
| CA\_n2A-n5A-n77A-n260K | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260K |  |
| CA\_n2A-n5A-n77A-n260L | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260L |  |
| CA\_n2A-n5A-n77A-n260M | | CA\_n2A-n260A/G/H/I  CA\_n5A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260M |  |
| CA\_n2A-n5A-n77A-n261A | | CA\_n2A-n261A  CA\_n5A-n261A  CA\_n77A-n261A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | 50, 100, 200, 400 |  |
| CA\_n2A-n5A-n77A-n261G | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261G |  |
| CA\_n2A-n5A-n77A-n261H | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261H |  |
| CA\_n2A-n5A-n77A-n261I | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261I |  |
| CA\_n2A-n5A-n77A-n261J | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261J |  |
| CA\_n2A-n5A-n77A-n261K | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261K |  |
| CA\_n2A-n5A-n77A-n261L | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261L |  |
| CA\_n2A-n5A-n77A-n261M | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261M |  |
| CA\_n2A-n5A-n77A-n261(G-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(G-I) |  |
| CA\_n2A-n5A-n77A-n261(2H) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2H) |  |
| CA\_n2A-n5A-n77A-n261(A-G-H) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-G-H) |  |
| CA\_n2A-n5A-n77A-n261(H-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(H-I) |  |
| CA\_n2A-n5A-n77A-n261(A-G-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-G-I) |  |
| CA\_n2A-n5A-n77A-n261(A-G) | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-G) |  |
| CA\_n2A-n5A-n77A-n261(A-H) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-H) |  |
| CA\_n2A-n5A-n77A-n261(A-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-I) |  |
| CA\_n2A-n5A-n77A-n261(2A-H) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2A-H) |  |
| CA\_n2A-n5A-n77A-n261(2A-I) | | CA\_n2A-n261A/G/H/I  CA\_n5A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2A-I) |  |
| CA\_n2A-n5A-n77A-n261(G-H) | | CA\_n2A-n261A/G/H  CA\_n5A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(G-H) |  |
| CA\_n2A-n5A-n77A-n261(2A) | | CA\_n2A-n261A  CA\_n5A-n261A  CA\_n77A-n261A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2A) |  |
| CA\_n2A-n5A-n77A-n261(3A) | | CA\_n2A-n261A  CA\_n5A-n261A  CA\_n77A-n261A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(3A) |  |
| CA\_n2A-n5A-n77A-n261(2G) | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2G) |  |
| CA\_n2A-n5A-n77A-n261(A-2G) | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-2G) |  |
| CA\_n2A-n5A-n77A-n261(2A-G) | | CA\_n2A-n261A/G  CA\_n5A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n5 | 5, 10, 15, 20, 25 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2A-G) |  |
| CA\_n2A-n48A-n66A-n260A | | CA\_n2A-n260A  CA\_n48A-n260A  CA\_n66A-n260A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | 50, 100, 200, 400 |  |
| CA\_n2A-n48A-n66A-n260G | | CA\_n2A-n260A/G  CA\_n48A-n260A/G  CA\_n66A-n260A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | CA\_n260G |  |
| CA\_n2A-n48A-n66A-n260H | | CA\_n2A-n260A/G/H  CA\_n48A-n260A/G/H  CA\_n66A-n260A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | CA\_n260H |  |
| CA\_n2A-n48A-n66A-n260I | | CA\_n2A-n260A/G/H/I  CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | CA\_n260I |  |
| CA\_n2A-n48A-n66A-n260J | | CA\_n2A-n260A/G/H/I  CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | CA\_n260J |  |
| CA\_n2A-n48A-n66A-n260K | | CA\_n2A-n260A/G/H/I  CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | CA\_n260K |  |
| CA\_n2A-n48A-n66A-n260L | | CA\_n2A-n260A/G/H/I  CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | CA\_n260L |  |
| CA\_n2A-n48A-n66A-n260M | | CA\_n2A-n260A/G/H/I  CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | CA\_n260M |  |
| CA\_n2A-n48A-n66A-n261A | | CA\_n2A-n261A  CA\_n66A-n261A  CA\_n48A-n261A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | 50, 100, 200, 400 |  |
| CA\_n2A-n48A-n66A-n261G | | CA\_n2A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | CA\_n261G |  |
| CA\_n2A-n48A-n66A-n261H | | CA\_n2A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n260 | CA\_n261H |  |
| CA\_n2A-n48A-n66A-n261I | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261I |  |
| CA\_n2A-n48A-n66A-n261J | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261J |  |
| CA\_n2A-n48A-n66A-n261K | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261K |  |
| CA\_n2A-n48A-n66A-n261L | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261L |  |
| CA\_n2A-n48A-n66A-n261M | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261M |  |
| CA\_n2A-n48A-n66A-n261(G-H) | | CA\_n2A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(G-H) |  |
| CA\_n2A-n48A-n66A-n261(2H) | | CA\_n2A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(2H) |  |
| CA\_n2A-n48A-n66A-n261(A-G-H) | | CA\_n2A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(A-G-H) |  |
| CA\_n2A-n48A-n66A-n261(H-I) | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(H-I) |  |
| CA\_n2A-n48A-n66A-n261(A-G-I) | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(A-G-I) |  |
| CA\_n2A-n48A-n66A-n261(A-G) | | CA\_n2A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(A-G) |  |
| CA\_n2A-n48A-n66A-n261(A-H) | | CA\_n2A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(A-H) |  |
| CA\_n2A-n48A-n66A-n261(A-I) | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(A-I) |  |
| CA\_n2A-n48A-n66A-n261(2A-G) | | CA\_n2A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(2A-G) |  |
| CA\_n2A-n48A-n66A-n261(2A-H) | | CA\_n2A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(2A-H) |  |
| CA\_n2A-n48A-n66A-n261(2A-I) | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(2A-I) |  |
| CA\_n2A-n48A-n66A-n261(G-I) | | CA\_n2A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(G-I) |  |
| CA\_n2A-n48A-n66A-n261(2A) | | CA\_n2A-n261A  CA\_n48A-n261A  CA\_n66A-n261A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(2A) |  |
| CA\_n2A-n48A-n66A-n261(3A) | | CA\_n2A-n261A  CA\_n48A-n261A  CA\_n66A-n261A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(3A) |  |
| CA\_n2A-n48A-n66A-n261(2G) | | CA\_n2A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(2G) |  |
| CA\_n2A-n48A-n66A-n261(A-2G) | | CA\_n2A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n261 | CA\_n261(A-2G) |  |
| CA\_n2A-n66A-n77A-n260A | | CA\_n2A-n260A  CA\_n66A-n260A  CA\_n77A-n260A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | 50, 100, 200, 400 |  |
| CA\_n2A-n66A-n77A-n260G | | CA\_n2A-n260A/G  CA\_n66A-n260A/G  CA\_n77A-n260A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260G |  |
| CA\_n2A-n66A-n77A-n260H | | CA\_n2A-n260A/G/H  CA\_n66A-n260A/G/H  CA\_n77A-n260A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260H |  |
| CA\_n2A-n66A-n77A-n260I | | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260I |  |
| CA\_n2A-n66A-n77A-n260J | | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260J |  |
| CA\_n2A-n66A-n77A-n260K | | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260K |  |
| CA\_n2A-n66A-n77A-n260L | | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260L |  |
| CA\_n2A-n66A-n77A-n260M | | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n260 | CA\_n260M |  |
| CA\_n2A-n66A-n77A-n261A | | CA\_n2A-n261A  CA\_n66A-n261A  CA\_n77A-n261A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | 50, 100, 200, 400 |  |
| CA\_n2A-n66A-n77A-n261G | | CA\_n2A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261G |  |
| CA\_n2A-n66A-n77A-n261H | | CA\_n2A-n260A/G/H  CA\_n66A-n260A/G/H  CA\_n77A-n260A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261H |  |
| CA\_n2A-n66A-n77A-n261I | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261I |  |
| CA\_n2A-n66A-n77A-n261J | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261J |  |
| CA\_n2A-n66A-n77A-n261K | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261K |  |
| CA\_n2A-n66A-n77A-n261L | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261L |  |
| CA\_n2A-n66A-n77A-n261M | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261M |  |
| CA\_n2A-n66A-n77A-n261(G-I) | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(G-I) |  |
| CA\_n2A-n66A-n77A-n261(2H) | | CA\_n2A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2H) |  |
| CA\_n2A-n66A-n77A-n261(A-G-H) | | CA\_n2A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-G-H) |  |
| CA\_n2A-n66A-n77A-n261(H-I) | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(H-I) |  |
| CA\_n2A-n66A-n77A-n261(A-G-I) | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-G-I) |  |
| CA\_n2A-n66A-n77A-n261(A-G) | | CA\_n2A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-G) |  |
| CA\_n2A-n66A-n77A-n261(A-H) | | CA\_n2A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-H) |  |
| CA\_n2A-n66A-n77A-n261(A-I) | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-I) |  |
| CA\_n2A-n66A-n77A-n261(2A-G) | | CA\_n2A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2A-G) |  |
| CA\_n2A-n66A-n77A-n261(2A-H) | | CA\_n2A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2A-H) |  |
| CA\_n2A-n66A-n77A-n261(2A-I) | | CA\_n2A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2A-I) |  |
| CA\_n2A-n66A-n77A-n261(G-H) | | CA\_n2A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(G-H) |  |
| CA\_n2A-n66A-n77A-n261(2A) | | CA\_n2A-n261A  CA\_n66A-n261A  CA\_n77A-n261A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2A) |  |
| CA\_n2A-n66A-n77A-n261(3A) | | CA\_n2A-n261A  CA\_n66A-n261A  CA\_n77A-n261A | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(3A) |  |
| CA\_n2A-n66A-n77A-n261(2G) | | CA\_n2A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(2G) |  |
| CA\_n2A-n66A-n77A-n261(A-2G) | | CA\_n2A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | n2 | 5, 10, 15, 20, 25, 30, 35 ,40 | 0 |
|  | |  | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  | |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  | |  | n261 | CA\_n261(A-2G) |  |

##### Table 5.5A.1.3-1b

**Table 5.5A.1.3-1b: Inter-band CA configurations and bandwidth combination sets between FR1 and FR2 (four bands)**

| **NR CA configuration** | **Uplink configuration** | | **NR Band** | **Channel bandwidth (MHz) (NOTE 1)** | **Bandwidth combination set** |
| --- | --- | --- | --- | --- | --- |
| CA\_n3A-n7A-n78A-n258A | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | 50, 100, 200, 400 |
| CA\_n3A-n7A-n78A-n258B | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258B |
| CA\_n3A-n7A-n78A-n258C | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258C |
| CA\_n3A-n7A-n78A-n258D | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258D |
| CA\_n3A-n7A-n78A-n258E | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258E |
| CA\_n3A-n7A-n78A-n258F | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258F |
| CA\_n3A-n7A-n78A-n258G | CA\_n3A-n258A/G  CA\_n7A-n258A/G  CA\_n78A-n258A/G  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258G |
| CA\_n3A-n7A-n78A-n258H | CA\_n3A-n258A/G/H  CA\_n7A-n258A/G/H  CA\_n78A-n258A/G/H  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258H |
| CA\_n3A-n7A-n78A-n258I | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258I |
| CA\_n3A-n7A-n78A-n258J | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258J |
| CA\_n3A-n7A-n78A-n258K | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258K |
| CA\_n3A-n7A-n78A-n258L | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258L |
| CA\_n3A-n7A-n78A-n258M | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | 5, 10, 15, 20, 25, 30, 40, 50 |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258M |
| CA\_n3A-n7B-n78A-n258A | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | 50, 100, 200, 400 |
| CA\_n3A-n7B-n78A-n258B | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258B |
| CA\_n3A-n7B-n78A-n258C | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258C |
| CA\_n3A-n7B-n78A-n258D | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258D |
| CA\_n3A-n7B-n78A-n258E | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258E |
| CA\_n3A-n7B-n78A-n258F | CA\_n3A-n258A  CA\_n7A-n258A  CA\_n78A-n258A  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258F |
| CA\_n3A-n7B-n78A-n258G | CA\_n3A-n258A/G  CA\_n7A-n258A/G  CA\_n78A-n258A/G  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258G |
| CA\_n3A-n7B-n78A-n258H | CA\_n3A-n258A/G/H  CA\_n7A-n258A/G/H  CA\_n78A-n258A/G/H  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258H |
| CA\_n3A-n7B-n78A-n258I | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258I |
| CA\_n3A-n7B-n78A-n258J | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258J |
| CA\_n3A-n7B-n78A-n258K | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258K |
| CA\_n3A-n7B-n78A-n258L | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258L |
| CA\_n3A-n7B-n78A-n258M | CA\_n3A-n258A/G/H/I  CA\_n7A-n258A/G/H/I  CA\_n78A-n258A/G/H/I  CA\_n3A-n7A  CA\_n3A-n78A  CA\_n7A-n78A | | n3 | 5, 10, 15, 20, 25, 30, 40, 50 | 0 |
| n7 | CA\_n7B |
| n78 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n258 | CA\_n258M |
| CA\_n3A-n8A-n77A-n257A | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n8A-n77A-n257G | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n3A-n8A-n77A-n257H | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n3A-n8A-n77A-n257I | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n3A-n8A-n77A-n257J | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257J |  |
| CA\_n3A-n8A-n77A-n257K | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257K |  |
| CA\_n3A-n8A-n77A-n257L | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257L |  |
| CA\_n3A-n8A-n77A-n257M | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257M |  |
| CA\_n3A-n8A-n77(2A)-n257A | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n8A-n77(2A)-n257G | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n3A-n8A-n77(2A)-n257H | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n3A-n8A-n77(2A)-n257I | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n3A-n8A-n77(2A)-n257J | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257J |  |
| CA\_n3A-n8A-n77(2A)-n257K | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257K |  |
| CA\_n3A-n8A-n77(2A)-n257L | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257L |  |
| CA\_n3A-n8A-n77(2A)-n257M | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n8 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257M |  |
| CA\_n3A-n28A-n41A-n257A | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n257A  CA\_n28A-n41A  CA\_n28A-n257A  CA\_n41A-n257A | | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
| n28 | 5, 10, 15, 20 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n257 | 50, 100, 200, 400 |
| CA\_n3A-n28A-n41A-n257G | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n257A/G  CA\_n28A-n41A  CA\_n28A-n257A/G  CA\_n41A-n257A/G | | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
| n28 | 5, 10, 15, 20 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n257 | CA\_n257G |
| CA\_n3A-n28A-n41A-n257H | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n257A/G/H  CA\_n28A-n41A  CA\_n28A-n257A/G/H  CA\_n41A-n257A/G/H | | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
| n28 | 5, 10, 15, 20 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n257 | CA\_n257H |
| CA\_n3A-n28A-n41A-n257I | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n257A/G/H/I  CA\_n28A-n41A  CA\_n28A-n257A/G/H/I  CA\_n41A-n257A/G/H/I | | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
| n28 | 5, 10, 15, 20 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n257 | CA\_n257I |
| CA\_n3A-n28A-n77A-n257A | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n28A-n77A  CA\_n3A-n257A  CA\_n28A-n257A  CA\_n77A-n257A | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n28A-n77A-n257D | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257D |  |
| CA\_n3A-n28A-n77A-n257G | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n28A-n77A  CA\_n3A-n257A/G  CA\_n28A-n257A/G  CA\_n77A-n257A/G | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n3A-n28A-n77A-n257H | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n28A-n77A  CA\_n3A-n257A/G/H  CA\_n28A-n257A/G/H  CA\_n77A-n257A/G/H | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n3A-n28A-n77A-n257I | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n28A-n77A  CA\_n3A-n257A/G/H/I  CA\_n28A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n3A-n28A-n77(2A)-n257A | CA\_n3A-n257A  CA\_n28A-n257A  CA\_n77A-n257A | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n28A-n77(2A)-n257D | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257D |  |
| CA\_n3A-n28A-n77(2A)-n257G | CA\_n3A-n257A/G  CA\_n28A-n257A/G  CA\_n77A-n257A/G | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n3A-n28A-n77(2A)-n257H | CA\_n3A-n257A/G/H  CA\_n28A-n257A/G/H  CA\_n77A-n257A/G/H | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n3A-n28A-n77(2A)-n257I | CA\_n3A-n257A/G/H/I  CA\_n28A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n3A-n28A-n77(3A)-n257A | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(3A) |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n28A-n77(3A)-n257D | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(3A) |  |
|  |  | | n257 | CA\_n257D |  |
| CA\_n3A-n28A-n77(3A)-n257G | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(3A) |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n3A-n28A-n77(3A)-n257H | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(3A) |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n3A-n28A-n77(3A)-n257I | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n77 | CA\_n77(3A) |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n3A-n28A-n78A-n257A | CA\_n28A-n257A  CA\_n78A-n257A | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n28A-n78A-n257D | - | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257D |  |
| CA\_n3A-n28A-n78A-n257G | CA\_n3A-n257A/G  CA\_n28A-n257A/G  CA\_n78A-n257A/G | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n3A-n28A-n78A-n257H | CA\_n3A-n257A/G/H  CA\_n28A-n257A/G/H  CA\_n78A-n257A/G/H | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n3A-n28A-n78A-n257I | CA\_n3A-n257A/G/H/I  CA\_n28A-n257A/G/H/I  CA\_n78A-n257A/G/H/I | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n3A-n28A-n79A-n257A | CA\_n3A-n28A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n79A-n257A | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n28A-n79A-n257G | CA\_n3A-n28A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n79A-n257A/G | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n3A-n28A-n79A-n257H | CA\_n3A-n28A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n79A-n257A/G/H | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n3A-n28A-n79A-n257I | CA\_n3A-n28A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n28 | 5, 10, 15, 20 |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n3A-n41A-n77A-n257A | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n77A-n257A | | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n257 | 50, 100, 200, 400 |
| CA\_n3A-n41A-n77A-n257G | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G  CA\_n41A-n77A  CA\_n41A-n257A/G  CA\_n77A-n257A/G | | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n257 | CA\_n257G |
| CA\_n3A-n41A-n77A-n257H | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n257A/G/H  CA\_n77A-n257A/G/H | | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n257 | CA\_n257H |
| CA\_n3A-n41A-n77A-n257I | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |
| n257 | CA\_n257I |
| CA\_n3A-n41A-n77(2A)-n257A | | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n77A-n257A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n41A-n77(2A)-n257G | | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G  CA\_n41A-n77A  CA\_n41A-n257A/G  CA\_n77A-n257A/G | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | CA\_n257G |  |
| CA\_n3A-n41A-n77(2A)-n257H | | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n257A/G/H  CA\_n77A-n257A/G/H | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | CA\_n257H |  |
| CA\_n3A-n41A-n77(2A)-n257I | | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n257 | CA\_n257I |  |
| CA\_n3A-n41A-n79A-n257A | | CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n79A-n257A | n3 | 10, 15, 20, 25, 30 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n41A-n79A-n257G | | CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n79A-n257A/G | n3 | 10, 15, 20, 25, 30 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
| CA\_n3A-n41A-n79A-n257H | | CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n79A-n257A/G/H | n3 | 10, 15, 20, 25, 30 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
| CA\_n3A-n41A-n79A-n257I | | CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n3 | 10, 15, 20, 25, 30 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
| CA\_n3A-n77A-n79A-n257A | CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n77A-n79A-n257G | CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n3A-n77A-n79A-n257H | CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n3A-n77A-n79A-n257I | CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n3A-n77(2A)-n79A-n257A | CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n77(2A)-n79A-n257G | CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n3A-n77(2A)-n79A-n257H | CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n3A-n77(2A)-n79A-n257I | CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n5A-n48A-n66A-n260A | CA\_n5A-n260A  CA\_n48A-n260A  CA\_n66A-n260A | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n260 | 50, 100, 200, 400 |  |
| CA\_n5A-n48A-n66A-n260G | CA\_n5A-n260A/G  CA\_n48A-n260A/G  CA\_n66A-n260A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n260 | CA\_n260G |  |
| CA\_n5A-n48A-n66A-n260H | CA\_n5A-n260A/G/H  CA\_n48A-n260A/G/H  CA\_n66A-n260A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n260 | CA\_n260H |  |
| CA\_n5A-n48A-n66A-n260I | CA\_n5A-n260A/G/H/I CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n260 | CA\_n260I |  |
| CA\_n5A-n48A-n66A-n260J | CA\_n5A-n260A/G/H/I  CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n260 | CA\_n260J |  |
| CA\_n5A-n48A-n66A-n260K | CA\_n5A-n260A/G/H/I  CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n260 | CA\_n260K |  |
| CA\_n5A-n48A-n66A-n260L | CA\_n5A-n260A/G/H/I  CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n260 | CA\_n260L |  |
| CA\_n5A-n48A-n66A-n260M | CA\_n5A-n260A/G/H/I  CA\_n48A-n260A/G/H/I  CA\_n66A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n260 | CA\_n260M |  |
| CA\_n5A-n48A-n66A-n261A | CA\_n5A-n261A  CA\_n48A-n261A  CA\_n66A-n261A | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | 50, 100, 200, 400 |  |
| CA\_n5A-n48A-n66A-n261G | CA\_n5A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261G |  |
| CA\_n5A-n48A-n66A-n261H | CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261H |  |
| CA\_n5A-n48A-n66A-n261I | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261I |  |
| CA\_n5A-n48A-n66A-n261J | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261J |  |
| CA\_n5A-n48A-n66A-n261K | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261K |  |
| CA\_n5A-n48A-n66A-n261L | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261L |  |
| CA\_n5A-n48A-n66A-n261M | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261M |  |
| CA\_n5A-n48A-n66A-n261(A-G) | CA\_n5A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(A-G) |  |
| CA\_n5A-n48A-n66A-n261(A-H) | CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(A-H) |  |
| CA\_n5A-n48A-n66A-n261(A-I) | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(A-I) |  |
| CA\_n5A-n48A-n66A-n261(2A-G) | CA\_n5A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(2A-G) |  |
| CA\_n5A-n48A-n66A-n261(2A-H) | CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(2A-H) |  |
| CA\_n5A-n48A-n66A-n261(2A-I) | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(2A-I) |  |
| CA\_n5A-n48A-n66A-n261(G-I) | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(G-I) |  |
| CA\_n5A-n48A-n66A-n261(2A) | CA\_n5A-n261A  CA\_n48A-n261A  CA\_n66A-n261A | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(2A) |  |
| CA\_n5A-n48A-n66A-n261(3A) | CA\_n5A-n261A  CA\_n48A-n261A  CA\_n66A-n261A | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(3A) |  |
| CA\_n5A-n48A-n66A-n261(2G) | CA\_n5A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(2G) |  |
| CA\_n5A-n48A-n66A-n261(A-2G) | CA\_n5A-n261A/G  CA\_n48A-n261A/G  CA\_n66A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(A-2G) |  |
| CA\_n5A-n48A-n66A-n261(G-H) | CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(G-H) |  |
| CA\_n5A-n48A-n66A-n261(2H) | CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(2H) |  |
| CA\_n5A-n48A-n66A-n261(A-G-H) | CA\_n5A-n261A/G/H  CA\_n48A-n261A/G/H  CA\_n66A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(A-G-H) |  |
| CA\_n5A-n48A-n66A-n261(H-I) | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(H-I) |  |
| CA\_n5A-n48A-n66A-n261(A-G-I) | CA\_n5A-n261A/G/H/I  CA\_n48A-n261A/G/H/I  CA\_n66A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n48 | 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n261 | CA\_n261(A-G-I) |  |
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| CA\_n5A-n66A-n77A-n260A | CA\_n5A-n260A  CA\_n66A-n260A  CA\_n77A-n260A | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | 50, 100, 200, 400 |  |
| CA\_n5A-n66A-n77A-n260G | CA\_n2A-n260A/G  CA\_n66A-n260A/G  CA\_n77A-n260A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260G |  |
| CA\_n5A-n66A-n77A-n260H | CA\_n2A-n260A/G/H  CA\_n66A-n260A/G/H  CA\_n77A-n260A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260H |  |
| CA\_n5A-n66A-n77A-n260I | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260I |  |
| CA\_n5A-n66A-n77A-n260J | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260J |  |
| CA\_n5A-n66A-n77A-n260K | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260K |  |
| CA\_n5A-n66A-n77A-n260L | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260L |  |
| CA\_n5A-n66A-n77A-n260M | CA\_n2A-n260A/G/H/I  CA\_n66A-n260A/G/H/I  CA\_n77A-n260A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n260 | CA\_n260M |  |
| CA\_n5A-n66A-n77A-n261A | CA\_n5A-n261A  CA\_n66A-n261A  CA\_n77A-n261A | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | 50, 100, 200, 400 |  |
| CA\_n5A-n66A-n77A-n261G | CA\_n5A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261G |  |
| CA\_n5A-n66A-n77A-n261H | CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261H |  |
| CA\_n5A-n66A-n77A-n261I | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261I |  |
| CA\_n5A-n66A-n77A-n261J | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261J |  |
| CA\_n5A-n66A-n77A-n261K | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261K |  |
| CA\_n5A-n66A-n77A-n261L | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261L |  |
| CA\_n5A-n66A-n77A-n261M | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261M |  |
| CA\_n5A-n66A-n77A-n261(G-H) | CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(G-H) |  |
| CA\_n5A-n66A-n77A-n261(2H) | CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2H) |  |
| CA\_n5A-n66A-n77A-n261(A-G-H) | CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-G-H) |  |
| CA\_n5A-n66A-n77A-n261(H-I) | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(H-I) |  |
| CA\_n5A-n66A-n77A-n261(A-G-I) | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-G-I) |  |
| CA\_n5A-n66A-n77A-n261(A-G) | CA\_n5A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-G) |  |
| CA\_n5A-n66A-n77A-n261(A-H) | CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-H) |  |
| CA\_n5A-n66A-n77A-n261(A-I) | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-I) |  |
| CA\_n5A-n66A-n77A-n261(A-2G) | CA\_n5A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(A-2G) |  |
| CA\_n5A-n66A-n77A-n261(2A-G) | CA\_n5A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2A-G) |  |
| CA\_n5A-n66A-n77A-n261(2A-H) | CA\_n5A-n261A/G/H  CA\_n66A-n261A/G/H  CA\_n77A-n261A/G/H | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2A-H) |  |
| CA\_n5A-n66A-n77A-n261(2A-I) | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2A-I) |  |
| CA\_n5A-n66A-n77A-n261(G-I) | CA\_n5A-n261A/G/H/I  CA\_n66A-n261A/G/H/I  CA\_n77A-n261A/G/H/I | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(G-I) |  |
| CA\_n5A-n66A-n77A-n261(2A) | CA\_n5A-n261A  CA\_n66A-n261A  CA\_n77A-n261A | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2A) |  |
| CA\_n5A-n66A-n77A-n261(3A) | CA\_n5A-n261A  CA\_n66A-n261A  CA\_n77A-n261A | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(3A) |  |
| CA\_n5A-n66A-n77A-n261(2G) | CA\_n5A-n261A/G  CA\_n66A-n261A/G  CA\_n77A-n261A/G | | n5 | 5, 10, 15, 20, 25 | 0 |
|  |  | | n66 | 5, 10, 15, 20, 25, 30, 35, 40, 45 |  |
|  |  | | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | | n261 | CA\_n261(2G) |  |
| CA\_n28A-n41A-n77A-n257A | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n77A-n257A | | n28 | 5, 10, 15, 20 | 0 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n77 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n257 | 50, 100, 200, 400 |
| CA\_n28A-n41A-n77A-n257G | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G  CA\_n41A-n77A  CA\_n41A-n257A/G  CA\_n77A-n257A/G | | n28 | 5, 10, 15, 20 | 0 |
| n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n77 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |
| n257 | CA\_n257G |
| CA\_n28A-n41A-n77A-n257H | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n257A/G/H  CA\_n77A-n257A/G/H | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n28A-n41A-n77A-n257I | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n28A-n41A-n77(2A)-n257A | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n77A-n257A | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n28A-n41A-n77(2A)-n257G | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G  CA\_n41A-n77A  CA\_n41A-n257A/G  CA\_n77A-n257A/G | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n28A-n41A-n77(2A)-n257H | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n257A/G/H  CA\_n77A-n257A/G/H | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n28A-n41A-n77(2A)-n257I | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n28A-n41A-n79A-n257A | | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n79A-n257A | n28 | 5, 10 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
| CA\_n28A-n41A-n79A-n257G | | CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n79A-n257A/G | n28 | 5, 10 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
| CA\_n28A-n41A-n79A-n257H | | CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n79A-n257A/G/H | n28 | 5, 10 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
| CA\_n28A-n41A-n79A-n257I | | CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n28 | 5, 10 | 0 |
|  | |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
| CA\_n28A-n77A-n79A-n257A | CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n28A-n77A-n79A-n257G | CA\_n257G  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n28A-n77A-n79A-n257H | CA\_n257G/H  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n28A-n77A-n79A-n257I | CA\_n257G/H/I  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n28A-n77(2A)-n79A-n257A | CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | 50, 100, 200, 400 |  |
| CA\_n28A-n77(2A)-n79A-n257G | CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n28A-n77(2A)-n79A-n257H | CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n28A-n77(2A)-n79A-n257I | CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | | n28 | 5, 10, 15, 20 | 0 |
|  |  | | n77 | CA\_n77(2A) |  |
|  |  | | n79 | 40, 50, 80, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n28A-n78A-n79A-n257A | CA\_n28A-n78A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n78A-n79A  CA\_n78A-n257A  CA\_n79A-n257A | | n28 | 5, 10, 15 | 0 |
|  |  | | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 80, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | 100, 200, 400 |  |
| CA\_n28A-n78A-n79A-n257G | CA\_n28A-n78A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n79A-n257A/G | | n28 | 5, 10, 15 | 0 |
|  |  | | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 80, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257G |  |
| CA\_n28A-n78A-n79A-n257H | CA\_n28A-n78A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n79A-n257A/G/H | | n28 | 5, 10, 15 | 0 |
|  |  | | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 80, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257H |  |
| CA\_n28A-n78A-n79A-n257I | CA\_n28A-n78A  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | | n28 | 5, 10, 15 | 0 |
|  |  | | n78 | 10, 15, 20, 25, 30, 40, 50, 60, 80, 100 |  |
|  |  | | n79 | 40, 50, 60, 80, 100 |  |
|  |  | | n257 | CA\_n257I |  |
| CA\_n41A-n77A-n79A-n257A | | CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
| CA\_n41A-n77A-n79A-n257G | | CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
| CA\_n41A-n77A-n79A-n257H | | CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
| CA\_n41A-n77A-n79A-n257I | | CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
| CA\_n41A-n77(2A)-n79A-n257A | | CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
| CA\_n41A-n77(2A)-n79A-n257G | | CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
| CA\_n41A-n77(2A)-n79A-n257H | | CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
| CA\_n41A-n77(2A)-n79A-n257I | | CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n77 | CA\_n77(2A) |  |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
| CA\_n77A-n79A-n257A-n259A | | CA\_n77A-n79A  CA\_n77A-n257A  CA\_n77A-n259A  CA\_n79A-n257A  CA\_n79A-n259A | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | 50, 100, 200, 400 |  |
| CA\_n77A-n79A-n257A-n259G | | CA\_n259G  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n77A-n259A/G  CA\_n79A-n257A  CA\_n79A-n259A/G | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259G |  |
| CA\_n77A-n79A-n257A-n259H | | CA\_n259G/H  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n77A-n259A/G/H  CA\_n79A-n257A  CA\_n79A-n259A/G/H | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259H |  |
| CA\_n77A-n79A-n257A-n259I | | CA\_n259G/H/I  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n77A-n259A/G/H/I  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259I |  |
| CA\_n77A-n79A-n257A-n259J | | CA\_n259G/H/I/J  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n77A-n259A/G/H/I/J  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I/J | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259J |  |
| CA\_n77A-n79A-n257A-n259K | | CA\_n259G/H/I/J/K  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n77A-n259A/G/H/I/J/K  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I/J/K | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259K |  |
| CA\_n77A-n79A-n257A-n259L | | CA\_n259G/H/I/J/K/L  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n77A-n259A/G/H/I/J/K/L  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I/J/K/L | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259L |  |
| CA\_n77A-n79A-n257A-n259M | | CA\_n259G/H/I/J/K/L/M  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n77A-n259A/G/H/I/J/K/L/M  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I/J/K/L/M | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259M |  |
| CA\_n77A-n79A-n257G-n259A | | CA\_n257G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n77A-n259A  CA\_n79A-n257A/G  CA\_n79A-n259A | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | 50, 100, 200, 400 |  |
| CA\_n77A-n79A-n257G-n259G | | CA\_n257G  CA\_n259G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n77A-n259A/G  CA\_n79A-n257A/G  CA\_n79A-n259A/G | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259G |  |
| CA\_n77A-n79A-n257G-n259H | | CA\_n257G  CA\_n259G/H  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n77A-n259A/G/H  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259H |  |
| CA\_n77A-n79A-n257G-n259I | | CA\_n257G  CA\_n259G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n77A-n259A/G/H/I  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259I |  |
| CA\_n77A-n79A-n257G-n259J | | CA\_n257G  CA\_n259G/H/I/J  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n77A-n259A/G/H/I/J  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I/J | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259J |  |
| CA\_n77A-n79A-n257G-n259K | | CA\_n257G  CA\_n259G/H/I/J/K  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n77A-n259A/G/H/I/J/K  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I/J/K | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259K |  |
| CA\_n77A-n79A-n257G-n259L | | CA\_n257G  CA\_n259G/H/I/J/K/L  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n77A-n259A/G/H/I/J/K/L  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I/J/K/L | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259L |  |
| CA\_n77A-n79A-n257G-n259M | | CA\_n257G  CA\_n259G/H/I/J/K/L/M  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n77A-n259A/G/H/I/J/K/L/M  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I/J/K/L/M | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259M |  |
| CA\_n77A-n79A-n257H-n259A | | CA\_n257G/H  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n77A-n257G/H  CA\_n77A-n259A  CA\_n79A-n257A  CA\_n79A-n257G/H  CA\_n79A-n259A | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | 50, 100, 200, 400 |  |
| CA\_n77A-n79A-n257H-n259G | | CA\_n257G/H  CA\_n259G  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n77A-n259A/G  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259G |  |
| CA\_n77A-n79A-n257H-n259H | | CA\_n257G/H  CA\_n259G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n77A-n259A/G/H  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259H |  |
| CA\_n77A-n79A-n257H-n259I | | CA\_n257G/H  CA\_n259G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n77A-n259A/G/H/I  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259I |  |
| CA\_n77A-n79A-n257H-n259J | | CA\_n257G/H  CA\_n259G/H/I/J  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n77A-n259A/G/H/I/J  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I/J | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259J |  |
| CA\_n77A-n79A-n257H-n259K | | CA\_n257G/H  CA\_n259G/H/I/J/K  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n77A-n259A/G/H/I/J/K  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I/J/K | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259K |  |
| CA\_n77A-n79A-n257H-n259L | | CA\_n257G/H  CA\_n259G/H/I/J/K/L  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n77A-n259A/G/H/I/J/K/L  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I/J/K/L | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259L |  |
| CA\_n77A-n79A-n257H-n259M | | CA\_n257G/H  CA\_n259G/H/I/J/K/L/M  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n77A-n259A/G/H/I/J/K/L/M  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I/J/K/L/M | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259M |  |
| CA\_n77A-n79A-n257I-n259A | | CA\_n257G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n77A-n259A  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | 50, 100, 200, 400 |  |
| CA\_n77A-n79A-n257I-n259G | | CA\_n257G/H/I  CA\_n259G  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n77A-n259A/G  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259G |  |
| CA\_n77A-n79A-n257I-n259H | | CA\_n257G/H/I  CA\_n259G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n77A-n259A/G/H  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259H |  |
| CA\_n77A-n79A-n257I-n259I | | CA\_n257G/H/I  CA\_n259G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n77A-n259A/G/H/I  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259I |  |
| CA\_n77A-n79A-n257I-n259J | | CA\_n257G/H/I  CA\_n259G/H/I/J  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n77A-n259A/G/H/I/J  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I/J | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259J |  |
| CA\_n77A-n79A-n257I-n259K | | CA\_n257G/H/I  CA\_n259G/H/I/J/K  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n77A-n259A/G/H/I/J/K  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I/J/K | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259K |  |
| CA\_n77A-n79A-n257I-n259L | | CA\_n257G/H/I  CA\_n259G/H/I/J/K/L  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n77A-n259A/G/H/I/J/K/L  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I/J/K/L | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259L |  |
| CA\_n77A-n79A-n257I-n259M | | CA\_n257G/H/I  CA\_n259G/H/I/J/K/L/M  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n77A-n259A/G/H/I/J/K/L/M  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I/J/K/L/M | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259M |  |
| CA\_n78A-n79A-n257A-n259A | | CA\_n78A-n79A  CA\_n78A-n257A  CA\_n78A-n259A  CA\_n79A-n257A  CA\_n79A-n259A | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | 50, 100, 200, 400 |  |
| CA\_n78A-n79A-n257A-n259G | | CA\_n259G  CA\_n78A-n79A  CA\_n78A-n257A  CA\_n78A-n259A/G  CA\_n79A-n257A  CA\_n79A-n259A/G | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259G |  |
| CA\_n78A-n79A-n257A-n259H | | CA\_n259G/H  CA\_n78A-n79A  CA\_n78A-n257A  CA\_n78A-n259A/G/H  CA\_n79A-n257A  CA\_n79A-n259A/G/H | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259H |  |
| CA\_n78A-n79A-n257A-n259I | | CA\_n259G/H/I  CA\_n78A-n79A  CA\_n78A-n257A  CA\_n78A-n259A/G/H/I  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259I |  |
| CA\_n78A-n79A-n257A-n259J | | CA\_n259G/H/I/J  CA\_n78A-n79A  CA\_n78A-n257A  CA\_n78A-n259A/G/H/I/J  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I/J | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259J |  |
| CA\_n78A-n79A-n257A-n259K | | CA\_n259G/H/I/J/K  CA\_n78A-n79A  CA\_n78A-n257A  CA\_n78A-n259A/G/H/I/J/K  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I/J/K | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259K |  |
| CA\_n78A-n79A-n257A-n259L | | CA\_n259G/H/I/J/K/L  CA\_n78A-n79A  CA\_n78A-n257A  CA\_n78A-n259A/G/H/I/J/K/L  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I/J/K/L | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259L |  |
| CA\_n78A-n79A-n257A-n259M | | CA\_n259G/H/I/J/K/L/M  CA\_n78A-n79A  CA\_n78A-n257A  CA\_n78A-n259A/G/H/I/J/K/L/M  CA\_n79A-n257A  CA\_n79A-n259A/G/H/I/J/K/L/M | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | 50, 100, 200, 400 |  |
|  | |  | n259 | CA\_n259M |  |
| CA\_n78A-n79A-n257G-n259A | | CA\_n257G  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n78A-n259A  CA\_n79A-n257A/G  CA\_n79A-n259A | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | 50, 100, 200, 400 |  |
| CA\_n78A-n79A-n257G-n259G | | CA\_n257G  CA\_n259G  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n78A-n259A/G  CA\_n79A-n257A/G  CA\_n79A-n259A/G | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259G |  |
| CA\_n78A-n79A-n257G-n259H | | CA\_n257G  CA\_n259G/H  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n78A-n259A/G/H  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259H |  |
| CA\_n78A-n79A-n257G-n259I | | CA\_n257G  CA\_n259G/H/I  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n78A-n259A/G/H/I  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259I |  |
| CA\_n78A-n79A-n257G-n259J | | CA\_n257G  CA\_n259G/H/I/J  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n78A-n259A/G/H/I/J  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I/J | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259J |  |
| CA\_n78A-n79A-n257G-n259K | | CA\_n257G  CA\_n259G/H/I/J/K  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n78A-n259A/G/H/I/J/K  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I/J/K | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259K |  |
| CA\_n78A-n79A-n257G-n259L | | CA\_n257G  CA\_n259G/H/I/J/K/L  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n78A-n259A/G/H/I/J/K/L  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I/J/K/L | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259L |  |
| CA\_n78A-n79A-n257G-n259M | | CA\_n257G  CA\_n259G/H/I/J/K/L/M  CA\_n78A-n79A  CA\_n78A-n257A/G  CA\_n78A-n259A/G/H/I/J/K/L/M  CA\_n79A-n257A/G  CA\_n79A-n259A/G/H/I/J/K/L/M | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257G |  |
|  | |  | n259 | CA\_n259M |  |
| CA\_n78A-n79A-n257H-n259A | | CA\_n257G/H  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n78A-n259A  CA\_n79A-n257A/G/H  CA\_n79A-n259A | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | 50, 100, 200, 400 |  |
| CA\_n78A-n79A-n257H-n259G | | CA\_n257G/H  CA\_n259G  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n78A-n259A/G  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259G |  |
| CA\_n78A-n79A-n257H-n259H | | CA\_n257G/H  CA\_n259G/H  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n78A-n259A/G/H  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259H |  |
| CA\_n78A-n79A-n257H-n259I | | CA\_n257G/H  CA\_n259G/H/I  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n78A-n259A/G/H/I  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259I |  |
| CA\_n78A-n79A-n257H-n259J | | CA\_n257G/H  CA\_n259G/H/I/J  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n78A-n259A/G/H/I/J  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I/J | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259J |  |
| CA\_n78A-n79A-n257H-n259K | | CA\_n257G/H  CA\_n259G/H/I/J/K  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n78A-n259A/G/H/I/J/K  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I/J/K | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259K |  |
| CA\_n78A-n79A-n257H-n259L | | CA\_n257G/H  CA\_n259G/H/I/J/K/L  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n78A-n259A/G/H/I/J/K/L  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I/J/K/L | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259L |  |
| CA\_n78A-n79A-n257H-n259M | | CA\_n257G/H  CA\_n259G/H/I/J/K/L/M  CA\_n78A-n79A  CA\_n78A-n257A/G/H  CA\_n78A-n259A/G/H/I/J/K/L/M  CA\_n79A-n257A/G/H  CA\_n79A-n259A/G/H/I/J/K/L/M | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257H |  |
|  | |  | n259 | CA\_n259M |  |
| CA\_n78A-n79A-n257I-n259A | | CA\_n257G/H/I  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n78A-n259A  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | 50, 100, 200, 400 |  |
| CA\_n78A-n79A-n257I-n259G | | CA\_n257G/H/I  CA\_n259G  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n78A-n259A/G  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259G |  |
| CA\_n78A-n79A-n257I-n259H | | CA\_n257G/H/I  CA\_n259G/H  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n78A-n259A/G/H  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259H |  |
| CA\_n78A-n79A-n257I-n259I | | CA\_n257G/H/I  CA\_n259G/H/I  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n78A-n259A/G/H/I  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259I |  |
| CA\_n78A-n79A-n257I-n259J | | CA\_n257G/H/I  CA\_n259G/H/I/J  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n78A-n259A/G/H/I/J  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I/J | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259J |  |
| CA\_n78A-n79A-n257I-n259K | | CA\_n257G/H/I  CA\_n259G/H/I/J/K  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n78A-n259A/G/H/I/J/K  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I/J/K | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259K |  |
| CA\_n78A-n79A-n257I-n259L | | CA\_n257G/H/I  CA\_n259G/H/I/J/K/L  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n78A-n259A/G/H/I/J/K/L  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I/J/K/L | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259L |  |
| CA\_n78A-n79A-n257I-n259M | | CA\_n257G/H/I  CA\_n259G/H/I/J/K/L/M  CA\_n78A-n79A  CA\_n78A-n257A/G/H/I  CA\_n78A-n259A/G/H/I/J/K/L/M  CA\_n79A-n257A/G/H/I  CA\_n79A-n259A/G/H/I/J/K/L/M | n78 | 10, 15, 20, 40, 50, 60, 80, 90, 100 | 0 |
|  | |  | n79 | 40, 50, 60, 80, 100 |  |
|  | |  | n257 | CA\_n257I |  |
|  | |  | n259 | CA\_n259M |  |

The following notes are applied to the above tables.

NOTE 1: The SCS of each channel bandwidth for NR FR1 and NR FR2 band refers to Table 5.3.5-1 of TS 38.101-1 and TS 38.101-2 respectively.

NOTE 2: The CA configurations are given in Table 5.5A.1-1 of either TS 38.101-1 or TS 38.101-2 where unless otherwise stated BCS0 is referred to.

NOTE 3: The delimiter “/” is only used in the uplink configurations for the sake of simplicity. For example, CA\_nxA-nyA/B/C denotes CA\_nxA-nyA, CA\_nxA-nyB and CA\_nxA-nyC, where nx and ny are two NR bands, ny is a FR2 band and A, B and C are the corresponding bandwidth classes respectively.

#### 5.5A.1.4 Inter-band CA configurations between FR1 and FR2 (five bands)

**Table 5.5A.1.4-1: Inter-band CA configurations and bandwidth combination sets between FR1 and FR2 (five bands)**

| **NR CA configuration** | **Uplink configuration** | **NR Band** | **Channel bandwidth (MHz) (NOTE 1)** | **Bandwidth combination set** |
| --- | --- | --- | --- | --- |
| CA\_n1A-n3A-n8A-n77A-n257A | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n3A-n8A-n77A-n257G | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n257 | CA\_n257G |  |
| CA\_n1A-n3A-n8A-n77A-n257H | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n257 | CA\_n257H |  |
| CA\_n1A-n3A-n8A-n77A-n257I | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n257 | CA\_n257I |  |
| CA\_n1A-n3A-n8A-n77A-n257J | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n257 | CA\_n257J |  |
| CA\_n1A-n3A-n8A-n77A-n257K | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n257 | CA\_n257K |  |
| CA\_n1A-n3A-n8A-n77A-n257L | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n257 | CA\_n257L |  |
| CA\_n1A-n3A-n8A-n77A-n257M | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  |
|  |  | n257 | CA\_n257M |  |
| CA\_n1A-n3A-n8A-n77(2A)-n257A | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n257 | 50, 100, 200, 400 |  |
| CA\_n1A-n3A-n8A-n77(2A)-n257G | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n257 | CA\_n257G |  |
| CA\_n1A-n3A-n8A-n77(2A)-n257H | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n257 | CA\_n257H |  |
| CA\_n1A-n3A-n8A-n77(2A)-n257I | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n257 | CA\_n257I |  |
| CA\_n1A-n3A-n8A-n77(2A)-n257J | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n257 | CA\_n257J |  |
| CA\_n1A-n3A-n8A-n77(2A)-n257K | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n257 | CA\_n257K |  |
| CA\_n1A-n3A-n8A-n77(2A)-n257L | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n257 | CA\_n257L |  |
| CA\_n1A-n3A-n8A-n77(2A)-n257M | - | n1 | 5, 10, 15, 20 | 0 |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  |
|  |  | n8 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n257 | CA\_n257M |  |
| CA\_n1A-n3A-n28A-n41A-n257A | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n257A  CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n257A  CA\_n28A-n41A  CA\_n28A-n257A  CA\_n41A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n28 | 5, 10 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n3A-n28A-n41A-n257G | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n257A/G  CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n257A/G  CA\_n28A-n41A  CA\_n28A-n257A/G  CA\_n41A-n257A/G | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n28 | 5, 10 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n3A-n28A-n41A-n257H | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n257A/G/H  CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n257A/G/H  CA\_n28A-n41A  CA\_n28A-n257A/G/H  CA\_n41A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n28 | 5, 10 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n3A-n28A-n41A-n257I | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n257A/G/H/I  CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n257A/G/H/I  CA\_n28A-n41A  CA\_n28A-n257A/G/H/I  CA\_n41A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n28 | 5, 10 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n1A-n3A-n28A-n77A-n257A | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A  CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n257A  CA\_n28A-n77A  CA\_n28A-n257A  CA\_n77A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n28 | 5, 10 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n3A-n28A-n77A-n257G | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A/G  CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n257A/G  CA\_n28A-n77A  CA\_n28A-n257A/G  CA\_n77A-n257A/G | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n28 | 5, 10 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n3A-n28A-n77A-n257H | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A/G/H  CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n257A/G/H  CA\_n28A-n77A  CA\_n28A-n257A/G/H  CA\_n77A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n28 | 5, 10 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n3A-n28A-n77A-n257I | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n257A/G/H/I  CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n257A/G/H/I  CA\_n28A-n77A  CA\_n28A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n28 | 5, 10 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n1A-n3A-n28A-n79A-n257A | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n3A-n28A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n79A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n3A-n28A-n79A-n257G | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n3A-n28A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n79A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n3A-n28A-n79A-n257H | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n3A-n28A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n79A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n3A-n28A-n79A-n257I | CA\_n1A-n3A  CA\_n1A-n28A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n3A-n28A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n1A-n3A-n41A-n77A-n257A | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A  CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n77A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n3A-n41A-n77A-n257G | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G  CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G  CA\_n41A-n77A  CA\_n41A-n257A/G  CA\_n77A-n257A/G | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n3A-n41A-n77A-n257H | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G/H  CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n257A/G/H  CA\_n77A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n3A-n41A-n77A-n257I | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G/H/I  CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n1A-n3A-n41A-n79A-n257A | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n79A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80,100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n3A-n41A-n79A-n257G | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n79A-n257A/G | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80,100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n3A-n41A-n79A-n257H | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n79A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80,100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n3A-n41A-n79A-n257I | CA\_n1A-n3A  CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80,100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n1A-n3A-n77A-n79A-n257A | CA\_n1A-n3A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n77 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n3A-n77A-n79A-n257G | CA\_n1A-n3A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n77 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n3A-n77A-n79A-n257H | CA\_n1A-n3A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n77 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n3A-n77A-n79A-n257I | CA\_n1A-n3A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n3 | 5, 10, 15, 20, 25, 30 |  | |
|  |  | n77 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n1A-n28A-n41A-n77A-n257A | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A  CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n77A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n28A-n41A-n77A-n257G | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G  CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G  CA\_n41A-n77A  CA\_n41A-n257A/G  CA\_n77A-n257A/G | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n28A-n41A-n77A-n257H | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G/H  CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n257A/G/H  CA\_n77A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n28A-n41A-n77A-n257I | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n257A/G/H/I  CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n257A/G/H/I CA\_n77A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n1A-n28A-n41A-n79A-n257A | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n79A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n28A-n41A-n79A-n257G | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n79A-n257A/G | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n28A-n41A-n79A-n257H | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n79A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n28A-n41A-n79A-n257I | CA\_n1A-n28A  CA\_n1A-n41A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n1A-n28A-n77A-n79A-n257A | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n28A-n77A-n79A-n257G | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n28A-n77A-n79A-n257H | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n28A-n77A-n79A-n257I | CA\_n1A-n28A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n28 | 5, 10, 15, 20 |  | |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n1A-n41A-n77A-n79A-n257A | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n1A-n41A-n77A-n79A-n257G | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n1A-n41A-n77A-n79A-n257H | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n1A-n41A-n77A-n79A-n257I | CA\_n1A-n41A  CA\_n1A-n77A  CA\_n1A-n79A  CA\_n1A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n1 | 5, 10, 15, 20 | 0 | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n79 | 40, 50, 60, 80, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n3A-n28A-n41A-n77A-n257A | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A  CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A  CA\_n41A-n77A  CA\_n41A-n257A  CA\_n77A-n257A | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 | |
|  |  | n28 | 5, 10, 15, 20, 30 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | 50, 100, 200, 400 |  | |
| CA\_n3A-n28A-n41A-n77A-n257G | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G  CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G  CA\_n41A-n77A  CA\_n41A-n257A/G  CA\_n77A-n257A/G | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 | |
|  |  | n28 | 5, 10, 15, 20, 30 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257G |  | |
| CA\_n3A-n28A-n41A-n77A-n257H | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G/H  CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n257A/G/H  CA\_n77A-n257A/G/H | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 | |
|  |  | n28 | 5, 10, 15, 20, 30 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257H |  | |
| CA\_n3A-n28A-n41A-n77A-n257I | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n257A/G/H/I  CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n257A/G/H/I  CA\_n77A-n257A/G/H/I | n3 | 5, 10, 15, 20, 25, 30, 40 | 0 | |
|  |  | n28 | 5, 10, 15, 20, 30 |  | |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  | |
|  |  | n77 | 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100 |  | |
|  |  | n257 | CA\_n257I |  | |
| CA\_n3A-n28A-n41A-n79A-n257A | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n79A-n257A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n41 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80,100 |  |
|  |  | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n28A-n41A-n79A-n257G | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n79A-n257A/G | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n41 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80,100 |  |
|  |  | n257 | CA\_n257G |  |
| CA\_n3A-n28A-n41A-n79A-n257H | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n79A-n257A/G/H | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n41 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80,100 |  |
|  |  | n257 | CA\_n257H |  |
| CA\_n3A-n28A-n41A-n79A-n257I | CA\_n3A-n28A  CA\_n3A-n41A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n28A-n41A  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n41 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80,100 |  |
|  |  | n257 | CA\_n257I |  |
| CA\_n3A-n28A-n77A-n79A-n257A | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 80, 100 |  |
|  |  | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n28A-n77A-n79A-n257G | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 80, 100 |  |
|  |  | n257 | CA\_n257G |  |
| CA\_n3A-n28A-n77A-n79A-n257H | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 80, 100 |  |
|  |  | n257 | CA\_n257H |  |
| CA\_n3A-n28A-n77A-n79A-n257I | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A/G/H/I | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 80, 100 |  |
|  |  | n257 | CA\_n257I |  |
| CA\_n3A-n28A-n77(2A)-n79A-n257A | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n79 | 40, 50, 80, 100 |  |
|  |  | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n28A-n77(2A)-n79A-n257G | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n79 | 40, 50, 80, 100 |  |
|  |  | n257 | CA\_n257G |  |
| CA\_n3A-n28A-n77(2A)-n79A-n257H | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n79 | 40, 50, 80, 100 |  |
|  |  | n257 | CA\_n257H |  |
| CA\_n3A-n28A-n77(2A)-n79A-n257I | CA\_n3A-n28A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n28 | 5, 10, 15, 20 |  |
|  |  | n77 | CA\_n77(2A)\_BCS0 |  |
|  |  | n79 | 40, 50, 80, 100 |  |
|  |  | n257 | CA\_n257I |  |
| CA\_n3A-n41A-n77A-n79A-n257A | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n257 | 50, 100, 200, 400 |  |
| CA\_n3A-n41A-n77A-n79A-n257G | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n257 | CA\_n257G |  |
| CA\_n3A-n41A-n77A-n79A-n257H | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n257 | CA\_n257H |  |
| CA\_n3A-n41A-n77A-n79A-n257I | CA\_n3A-n41A  CA\_n3A-n77A  CA\_n3A-n79A  CA\_n3A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n3 | 5, 10, 15, 20, 25, 30 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n257 | CA\_n257I |  |
| CA\_n28A-n41A-n77A-n79A-n257A | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A  CA\_n77A-n79A  CA\_n77A-n257A  CA\_n79A-n257A | n28 | 5, 10, 15, 20 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n257 | 50, 100, 200, 400 |  |
| CA\_n28A-n41A-n77A-n79A-n257G | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G  CA\_n77A-n79A  CA\_n77A-n257A/G  CA\_n79A-n257A/G | n28 | 5, 10, 15, 20 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n257 | CA\_n257G |  |
| CA\_n28A-n41A-n77A-n79A-n257H | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H  CA\_n77A-n79A  CA\_n77A-n257A/G/H  CA\_n79A-n257A/G/H | n28 | 5, 10, 15, 20 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n257 | CA\_n257H |  |
| CA\_n28A-n41A-n77A-n79A-n257I | CA\_n28A-n41A  CA\_n28A-n77A  CA\_n28A-n79A  CA\_n28A-n257A/G/H/I  CA\_n41A-n77A  CA\_n41A-n79A  CA\_n41A-n257A/G/H/I  CA\_n77A-n79A  CA\_n77A-n257A/G/H/I  CA\_n79A-n257A/G/H/I | n28 | 5, 10, 15, 20 | 0 |
|  |  | n41 | 10, 15, 20, 30, 40, 50, 60, 80, 90, 100 |  |
|  |  | n77 | 10, 15, 20, 40, 50, 60, 80, 90, 100 |  |
|  |  | n79 | 40, 50, 60, 80, 100 |  |
|  |  | n257 | CA\_n257I |  |
| NOTE 1: The SCS of each channel bandwidth for NR FR1 and NR FR2 band refers to Table 5.3.5-1 of TS 38.101-1 and TS 38.101-2 respectively.  NOTE 2: The CA configurations are given in Table 5.5A.1-1 of either TS 38.101-1 or TS 38.101-2 where unless otherwise stated BCS0 is referred to.  NOTE 3: The delimiter “/” is only used in the uplink configurations for the sake of simplicity. For example, CA\_nxA-nyA/B/C denotes CA\_nxA-nyA, CA\_nxA-nyB and CA\_nxA-nyC, where nx and ny are two NR bands, ny is a FR2 band and A, B and C are the corresponding bandwidth classes respectively. | | | | |

### *<< End of changes >>*