**3GPP TSG-WG1 Meeting #106bR1-21xxxxx**

**e-meeting, October 11 – 19, 2021**

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| *CR-Form-v12.0* |
| **DRAFT CHANGE REQUEST** |
|  |
|  | **38.211** | **CR** | **xxx** | **rev** | **x** | **Current version:** | **16.7.0** |  |
|  |
| *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 | **X** | Core Network |  |

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|  |
| ***Title:***  | Introduction of DL 1024QAM for NR FR1 |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** | NR\_DL1024QAM\_FR1-Core |  | ***Date:*** | 2021-10-18 |
|  |  |  |  |  |
| ***Category:*** | B |  | ***Release:*** | Rel-17 |
|  | *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 canbe 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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** |  |
|  |  |
| ***Summary of change:*** |  |
|  |  |
| ***Consequences if not approved:*** |  |
|  |  |
| ***Clauses affected:*** | 5.1.7, 7.3.1.2 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | 38.212, 38.213, 38.214  |
| ***affected:*** |  | **x** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **x** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

### 5.1.7 1024QAM

In case of 1024QAM modulation, 10-tuplets of bits, , are mapped to complex-valued modulation symbols according to

#### 7.3.1.2 Modulation

For each codeword , the UE shall assume the block of scrambled bits are modulated as described in clause 5.1 using one of the modulation schemes in Table 7.3.1.2-1, resulting in a block of complex-valued modulation symbols .

Table 7.3.1.2-1: Supported modulation schemes.

|  |  |
| --- | --- |
| Modulation scheme | Modulation order  |
| QPSK | 2 |
| 16QAM | 4 |
| 64QAM | 6 |
| 256QAM | 8 |
| 1024QAM | 10 |