3GPP TSG-RAN WG3 Meeting #125bis R3-24xxxx

Hefei, China, 14th – 18th Oct 2024

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.455** | **CR** |  | **rev** |  | **Current version:** | **18.3.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network | **X** | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | introduction of bandwidths 35MHz and 45MHz in FR1 SRS Bandwidth | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Telecom, CATT, China Unicom, Ericsson, Huawei | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_pos-Core,TEI18 | | | | |  | ***Date:*** | | | 2024-10-18 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Per TS38.104, some FR1 bandwidth values specified in Rel-17 are not included in *Requested SRS Transmission Characteristics* IE. In order to support positioning function in different cell bandwith, it is need to include these missing banddith values in *Requested SRS Transmission Characteristics* IE. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | * To add the codepoints 35 and 45 in *FR1 bandwidth* in *Requested SRS Transmission Characteristics* IE and corresponding ASN.1 part.   Impact Analysis:  Impact assessment towards the previous version of the specification (same release):  This CR has an isolated impact towards the previous version of the specification (same release). This CR only has an impact on Positioning function. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Cell Bandwidth Configurations, i.e, 35MHz, 45MHz, can not be supported in Positioning function. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.2.27,9.3.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

//////////////////////////////////////////////////////////////irrelevant operations skipped/////////////////////////////////////////////////////////////////////

### .2.27 Requested SRS Transmission Characteristics

This IE contains the requested SRS configuration for the UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Number Of Periodic Transmissions | C-ifResourceTypePeriodic |  | INTEGER (0..500,…) | The number of periodic SRS transmissions requested. The value of ‘0’ represents an infinite number of periodic SRS transmissions. | - |  |
| Resource Type | M |  | ENUMERATED (periodic, semi-persistent, aperiodic, …) |  | - |  |
| CHOICE *Bandwidth* | M |  |  |  | - |  |
| *>FR1* |  |  | ENUMERATED (5mHz, 10mHz, 20mHz, 40mHz, 50mHz, 80mHz, 100mHz, ... , 35mHz, 45mHz) |  |  |  |
| *>FR2* |  |  | ENUMERATED (50mHz, 100mHz, 200mHz, 400mHz,… , 800mHz, 1600mHz, 2000mHz) |  |  |  |
| **SRS Resource Set List** |  | *0.. 1* |  |  | - |  |
| **>SRS Resource Set Item** |  | *1..<* *maxnoSRS-ResourceSets>* |  |  | - |  |
| >>Number of SRS Resources Per Set | O |  | INTEGER (1..16,...) | The number of SRS Resources per resource set for SRS transmission. | - |  |
| **>>Periodicity List** |  | *0.. 1* |  |  | - |  |
| **>>>Periodicity List Item** |  | *1..<maxnoSRS-ResourcePerSet>* |  |  | - |  |
| >>>>PeriodicitySRS | M |  | ENUMERATED (0.125, 0.25, 0.5, 0.625, 1, 1.25, 2, 2.5, 4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 160, 320, 640, 1280, 2560, 5120, 10240, …) | Milli-seconds | - |  |
| >>Spatial Relation Information | O |  | 9.2.34 | This IE is ignored if the *Spatial Relation Information per SRS Resource* IE is present. | - |  |
| >>Pathloss Reference Information | O |  | 9.2.53 |  | - |  |
| >>Spatial Relation Information per SRS Resource | O |  | 9.2.60 |  | - |  |
| SSB Information | O |  | 9.2.54 |  | - |  |
| SRS Frequency | O |  | INTEGER(0..3279165) | NR ARFCN  The carrier frequency of SRS transmission bandwidth. | YES | ignore |

/////////////////////////////////////////////////////////////irrelevant operations skipped/////////////////////////////////////////////////////////////////////

### 9.3.5 Information Element definitions

//////////////////////////////////////////////////////////////irrelevant operations skipped/////////////////////////////////////////////////////////////////////

-- B

//////////////////////////////////////////////////////////////irrelevant operations skipped/////////////////////////////////////////////////////////////////////

BandwidthSRS ::= CHOICE {

fR1 ENUMERATED {mHz5, mHz10, mHz20, mHz40, mHz50, mHz80, mHz100, ..., mHz35, mHz45},

fR2 ENUMERATED {mHz50, mHz100, mHz200, mHz400, ..., mHz600, mhz800, mHz1600, mHz2000 },

choice-extension ProtocolIE-Single-Container { { BandwidthSRS-ExtIEs } }

}

//////////////////////////////////////////////////////////////irrelevant operations skipped/////////////////////////////////////////////////////////////////////