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** | **0173** | **rev** | **1** | **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:***  | Correction on FR1 SRS Bandwidth in Requested SRS Transmission Characteristics |
|  |  |
| ***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 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-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-16 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 15,25,30,60,70,90 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. |
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| ***Consequences if not approved:*** | Some Cell Bandwidth Configurations, i.e, 15MHz, 25MHz, 30MHz,60MHz,70MHz, and 90MHz, can not be supported in Positioning function. |
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| ***Clauses affected:*** | 9.3.1.175,9.3.5 |
|  |  |
|  | **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:*** | Rev 1: remove the codepoints 35 and 45 in *FR1 Bandwidth* IE and corresponding ASN.1 part |

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

### 9.2.27 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, ... , 160mHz, 200mHz, 15mHz, 25mHz, 30mHz, 60mHz, 70mHz,90mHz) |  |  |  |
| *>FR2* |  |  | ENUMERATED (50mHz, 100mHz, 200mHz, 400mHz,…, 600mHz, 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 |
| Bandwidth Aggregation Request Indication | O |  | ENUMERATED(true, …) |  | YES | ignore |
| Positioning Validity Area Cell List | O |  | 9.2.93 |  | YES | ignore |
| Validity Area Specific SRS Information | O |  | 9.2.96 |  | YES | ignore |

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### 9.3.5 Information Element definitions

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-- B

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

BandwidthSRS ::= CHOICE {

 fR1 ENUMERATED {mHz5, mHz10, mHz20, mHz40, mHz50, mHz80, mHz100, ... ,mHz160, mHz200, mHz15, mHz25, mHz30, mHz60, mHz70, mHz90},

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

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

}

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