**3GPP TSG-RAN WG2 Meeting #127bis *R2-2409385***

**Hefei, Anhui, China, 14-18 October 2024**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
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|  | **38.306** | **CR** | **1196** | **rev** | **1** | **Current version:** | **18.3.0** |  |
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| *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:***  | Clarification on capability for inter-frequency configuration for less than 5MHz |
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| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | NR\_FR1\_lessthan\_5MHz\_BW |  | ***Date:*** | 2024-10-14 |
|  |  |  |  |  |
| ***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 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)**Rel-20 (Release 20)* |
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| ***Reason for change:*** | For inter-frequency configuration in SIB4, RAN2 agreed to add a Rel-18 parallel list in SIB4 indicating the *dl-CarrierFreq-r18* and *frequencyBandList-r18* of the <5MHz neighbor cells, and to define reserved values for GSCN and NR band. In RAN4 reply LS R4-2407118 / R2-2404038, RAN4 agreed to reserve operating band n200 as well as GSCN 2.This is a new configuration and new behaviors are defined in Rel-18 for UE supporting less than 5MHz carrier, but the capability description is missing in TS 38.306. |
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| ***Summary of change:*** | To clarify a UE supporting less than 5MHz carrier also supports the configuration *dl-CarrierFreq-r18* and *frequencyBandList-r18* as specified in TS 38.331.**Impact analysis:**Impacted functionality:Inter-frequency cell reselection for Less than 5MHz cellsInter-operability: If the UE is implemented according to this CR while the network is not, there is no inter-operability issue.If the network is implemented according to this CR while the UE is not, there is no inter-operability issue. |
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| ***Consequences if not approved:*** | The UE supporting less than 5MHz carrier may not support the configuration *dl-CarrierFreq-r18* and *frequencyBandList-r18* as specified in TS 38.331. |
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| ***Clauses affected:*** | 6 |
|  |  |
|  | **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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

Start of Change

6 Conditionally mandatory features without UE radio access capability parameters

| **Features** | **Condition** |
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| Acquisition of positioning SI messages with 80 milliseconds offset position compared to SI messages in *schedulingInfoList* | It is mandatory to support acquisition of positioning SI messages with 80 milliseconds offset position compared to SI messages in *schedulingInfoList* for UEs which support the acquisition of the posSIB types in *posSchedulingInfoList* as specified in TS 38.331 [9]. |
| Acquisition of SI messages with explicit SI window positions | It is mandatory to support acquisition of SI messages with explicit SI window positions for UEs which support the SIB types in *schedulingInfoList2* as specified in TS 38.331 [9]. |
| AS layer memory size for QoE paused measurement reports | It is mandatory to support the minimum AS layer memory size of 64KB for QoE paused measurement reports for UEs which support *qoe-Streaming-MeasReport-r17*, *qoe-MTSI-MeasReport-r17* or *qoe-VR-MeasReport-r17*. |
| AS layer memory size for QoE measurement reports in RRC\_IDLE and RRC\_INACTIVE | It is mandatory to support the minimum AS layer memory size of 64KB for QoE measurement reports stored in RRC\_IDLE/RRC\_INACTIVE for UEs which support *qoe-IdleInactiveMeasReport-r18* and any of *qoe-Streaming-MeasReport-r17* or *qoe-MTSI-MeasReport-r17* or *qoe-VR-MeasReport-r17*. This memory size is additional to "AS layer memory size for QoE paused measurement reports" |
| ATG specific P-max | It is mandatory to support the ATG specific P-max configured by network for UEs supporting *airToGroundNetwork-r18*. |
| Downlink SDAP header | Either NAS reflective QoS or *as-ReflectiveQoS* is supported. |
| Extended values for *drx-HARQ-RTT-TimerDL/UL* | It is mandatory for UEs which support FR2-2 bands with SCS 480kHz and/or 960kHz. |
| IMS emergency call | It is mandatory to support IMS emergency call over PLMN for UEs which are IMS voice capable in NR.It is mandatory to support IMS emergency call over SNPN for UEs that are SNPN capable and IMS voice capable over SNPNs. |
| Logged measurements suspension due to IDC interference | It is mandatory to support Logged measurements suspension due to IDC interference for UEs which are supporting logged measurements in RRC\_IDLE and RRC\_INACTIVE upon request from the network and in-device coexistence indication as specified in TS 38.331 [9]. |
| MAC subheaders with LX field | It is mandatory to support MAC subheaders with LX field for UEs supporting MAC SDU(s) using the LCID value(s) as specified in Table 6.2.1-2c in TS 38.321 [8]. |
| MAC subheaders with one-octet eLCID field | It is mandatory to support MAC subheaders with one-octet eLCID field for UEs/IAB-MTs supporting MAC CEs using extended LCID values as specified in TS 38.321 [8]. |
| Paging cause in RAN paging message | It is mandatory for a UE to support paging cause in RAN paging if UE supports paging cause in CN paging. |
| Receiving PSCCH/PSSCH from 2nd starting symbol in a slot | It is mandatory for a UE supporting NR sidelink in shared spectrum and when shared spectrum channel access must be used to support receiving PSCCH/PSSCH transmitted from 2nd starting symbol in a slot in addition to the first starting symbol and monitor a total up to the number reported in *pscch-RxSidelink-r16* of PSCCHs in a slot in the 1st and 2nd starting symbols.A UE supporting this feature shall indicate support of *sl-Reception-r16*. |
| Receiving UE to UE COT sharing information | It is mandatory for a UE supporting NR SL in shared spectrum where shared spectrum channel access must be used to support monitoring SCI to read COT sharing information and transmitting NR SL based on COT sharing information subject to COT sharing conditions.A UE supporting this feature shall indicate support of *sl-DynamicChannelAccess-r18*. |
| SON report in PNI-NPN | It is mandatory for a UE to support a SON report in PNI-NPN if UE supports PNI-NPN and supports the SON report in PLMN. |
| Skipping UL configured grant if no data to transmit, as specified in release-15 version of TS 38.321 [8]. | Either configuredUL-GrantType1 or *configuredUL-GrantType1-v1650* or configuredUL-GrantType2 or *configuredUL-GrantType2-v1650* is supported. |
| TA reporting during initial access | It is mandatory to support TA reporting during initial access for UEs supporting *uplink-TA-Reporting-r17* or *uplinkTA-ReportingATG-r18* as specified in TS 38.321 [8]. |
| Configuration of *dl-CarrierFreq-r18* and *frequencyBandList-r18* in SIB4 | It is mandatory to support configuration of *dl-CarrierFreq-r18* and *frequencyBandList-r18* as specified in TS 38.331 [9] for UEs supporting *support5MHz-ChannelBW-20PRB-CORESET0-r18*, *support3MHz-ChannelBW-Symmetric-r18* or *support3MHz-ChannelBW-Asymmetric-r18*. |

End of Change