**3GPP TSG-RAN WG4 Meeting#116 *DRAFT\_R4-2511846***

**Bengaluru, India, 25 – 29 August 2025**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-1** | **CR** | **2962** | **rev** | **1** | **Current version:** | **18.10.0** |  |
|  | | | | | | | | |
| *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:*** | (NR\_channel\_raster\_enh-Core) Correction to nominal CA spacing to accommodate UE-specific channel bandwidths | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_channel\_raster\_enh-Core | | | | |  | ***Date:*** | | | 2025-08-25 |
|  |  | | | |  | |  | | |  |
| ***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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The nominal CA spacing applicable when a UE-specific channel bandwidth configured within a component carrier is subject to different interpretations in the field; the definition of a contiguous CA configuration with configured UE-specific channel bandwidths unclear.  The nominal CA spacing is not defined when a UE is configured with a UE-specific channel bandwidth within a component carrier. | | | | | | | | |
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| ***Summary of change:*** | | Clause 5.4A.1: the nominal CA spacing between a UE specific channel bandwidth configured within a component carrier (CC2 below) and an adjacent NR carrier (CC1 below) is defined with the configured UE-specific channel bandwith (MHz), its corresponding carrier bandwidth (transmission bandwidth configuration) and center frequency replacing those of the said component carrier (CC2) as shown below:    The carriers and UE specific channel bandwidth can also be located/centred on the enhanced channel raster.  A CA configuration with a UE-specific configured within a wider component carrier and a another NR component carrier can be non-contigous even if the CA configuration with the two carrier is contiguous (e.g. if the narrower UE-specific channel bandwidth shown in the figure above is configured at the upper edge of CC2). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Unclear whether a CA combination of a UE-specific CHBW and another adjacent carrier is contiguous or non-contiguous. | | | | | | | | |
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| ***Clauses affected:*** | | 5.4A.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | | **X** |  | Test specifications | | | | . TS 38.521-1 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | r1: the formulations of the corrections modified | | | | | | | | |

*< start of changes >*

### 5.4A.1 Channel spacing for CA

For intra-band contiguous carrier aggregation with two or more component carriers, the nominal channel spacing between two adjacent NR component carriers is defined as the following unless stated otherwise:

For NR operating bands with a 100 kHz or 10 kHz channel raster:



while for NR operating bands without a 100 kHz channel raster:



with

*n = µ0*

where BWChannel(1) and BWChannel(2) are the channel bandwidths of the two respective NR component carriers according to Table 5.3.2-1 with values in MHz, *μ0* is the largest *μ* value among the subcarrier spacing configurations supported in the operating band for both of the channel bandwidths according to Table 5.3.5-1 and *GBChannel(i)* is the minimum guard band for channel bandwidth i according to Table 5.3.3-1 for the said *μ* value with *μ* as defined in TS 38.211. In case there is no common μ value for both of the channel bandwidths, *μ0*=1 is selected and *GBChannel(i)* is the minimum guard band for channel bandwidth i according to Table 5.3.3-1 for *μ*=1 with *μ* as defined in TS 38.211.

NEW:

The bandwidth BWChannel(*i*) for determining the nominal channel spacing is the UE specific channel bandwidth, if configured by *ServingCellConfig*, the channel bandwidth of the NR component carrier otherwise.

The channel spacing for intra-band contiguous carrier aggregation can be adjusted to any multiple of least common multiple of channel raster, the enhanced channel raster if supported, and sub-carrier spacing less than the nominal channel spacing to optimize performance in a particular deployment scenario.

For intra-band contiguous carrier aggregation in NR bands restricted to operation with shared-spectrum channel access, the maximum deviation from the nominal channel spacing is 300 kHz.

For intra-band non-contiguous carrier aggregation, the channel spacing between two NR component carriers in different sub-blocks shall be larger than the nominal channel spacing defined in this clause.

### 5.4A.2 Channel raster for CA

*< end of changes >*