**3GPP TSG-WG4 Meeting #112 *R4-2412606***

**Maastricht, Netherlands, 19th – 23rd August, 2024**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.101-3** | **CR** | **1292** | **rev** | **-** | **Current version:** | **18.6.0** |  |
|  |
| *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:***  | (TEI18) R18 Cat-F CR 38.101-3 channel spacing for intra-band EN-DC |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon  |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | IntraBandENDC\_Channelspacing |  | ***Date:*** | 2024-08-09 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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)* |
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| ***Reason for change:*** | In RAN4#111, LS on intra-band EN-DC channel spacing was approved to ask RAN2 to introduce the capability supporting intra-band non-contiguous EN-DC with nominal channel spacing. In current RAN4 specification, there is no applicable requirement for intra-band non-contiguous EN-DC with nominal channel spacing.  |
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| ***Summary of change:*** | Define applicable requirements for intra-band non-contiguous EN-DC with nominal channel spacing. |
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| ***Consequences if not approved:*** | It is not possible to apply intra-band non-contiguous EN-DC with nominal channel spacing. |
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| ***Clauses affected:*** | 5.4B.1 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  |  |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** | **X** |  |  Test specifications | TS 38.521-3 |
| ***(show related CRs)*** |  |  |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

## **<Start of Change>**

### 5.4B.1 Channel spacing for intra-band EN-DC carriers

The spacing between carriers will depend on the deployment scenario, the size of the frequency block available and the channel bandwidths. The nominal channel spacing between and E-UTRA carrier and an adjacent NR carrier for intra-band contiguous EN-DC is defined as following:

- For NR operating bands with 100 kHz channel raster,

Nominal Channel spacing = (BWE-UTRA\_Channel + BWNR\_Channel)/2

- For NR operating bands with 15 kHz channel raster,

- Nominal Channel spacing = (BWE-UTRA\_Channel + BWNR\_Channel)/2+{-5kHz, 0kHz, 5kHz} for ∆FRaster equals to 15 kHz

- Nominal Channel spacing = (BWE-UTRA\_Channel + BWNR\_Channel)/2+{-10 kHz, 0 kHz, 10 kHz} for ∆FRaster equals to 30 kHz

where BWE-UTRA\_Channel and BWNR\_Channel are the channel bandwidths of the E-UTRA and NR carriers, ∆FRaster is the band dependent channel raster granularity defined in TS38.101-1[2]. The channel spacing can be adjusted depending on the channel raster to optimize performance in a particular deployment scenario.

For intra-band non-contiguous EN-DC the channel spacing between E-UTRA and NR carriers shall be larger than the nominal channel spacing defined in this clause.

UE indicating [*intraBandENDC*-*NominalSpacing*] for a non-contiguous intra-band EN-DC configuration shall meet requirements for intra-band non-contiguous EN-DC with equal to or greater than nominal channel spacing

## **<End of Change>**