**3GPP TSG RAN WG1 #118 R1-24NNNN**

Maastricht, Netherlands, August 19th – August 24th, 2024

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| *CR-Form-v12.2* |
| **DRAFT CHANGE REQUEST** |
|  |
|  | **38.211** | **CR** | **-** | **rev** | **-** | **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:***  | Draft CR on bandwidth part considering SRS frequency hopping for positioning |
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| ***Source to WG:*** | Moderator (Ericsson), vivo |
| ***Source to TSG:*** | RAN1 |
|  |  |
| ***Work item code:*** | NR\_Pos\_enh2-Core |  | ***Date:*** | 2024-08-09 |
|  |  |  |  |  |
| ***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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** | According to the TS38.214 as follows

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| 6.2.1.4.1 SRS frequency hopping for positioningThe reduced capability UE may be configured via SRS-PosTx-Hopping, subject to UE capability, to perform transmit frequency hopping **separate from the UL BWP configuration and outside of the UL BWP**, where the UE may be configured with subcarrier spacing, CP and bandwidth that **are different from the UL active BWP**. |

The reduced capability UE may transmit SRS outside the UL active BWP. But in TS38.211, the UE is not allowed to transimit SRS outside active BWP. |
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| ***Summary of change:*** | Update TS38.211 to consider transimit SRS frequency hopping for positioning outside the UL BWP |
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| ***Consequences if not approved:*** | Inconsistent and incorrect for SRS on frequency hopping between TS 38.214 v18.3.0 and TS 38.211 v18.3.0. |
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| ***Clauses affected:*** | 4.4.5 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  |  |
| ***affected:*** |  | **X** |  Test specifications |  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications |  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

### 4.4.5 Bandwidth part

A bandwidth part is a subset of contiguous common resource blocks defined in clause 4.4.4.3 for a given numerology  in bandwidth part  on a given carrier. The starting position $N\_{BWP,i}^{start,μ}$ and the number of resource blocks $N\_{BWP,i}^{size,μ}$ in a bandwidth part shall fulfil $N\_{grid,x}^{start,μ}\leq N\_{BWP,i}^{start,μ}<N\_{grid,x}^{start,μ}+N\_{grid,x}^{size,μ}$ and $N\_{grid,x}^{start,μ}<N\_{BWP,i}^{start,μ}+N\_{BWP,i}^{size,μ}\leq N\_{grid,x}^{start,μ}+N\_{grid,x}^{size,μ}$, respectively. Configuration of a bandwidth part is described in clause 12 of [5, TS 38.213].

A UE can be configured with up to four bandwidth parts in the downlink with a single downlink bandwidth part being active at a given time. The UE is not expected to receive PDSCH, PDCCH, or CSI-RS (except for RRM) outside an active bandwidth part.

A UE can be configured with up to four bandwidth parts in the uplink with a single uplink bandwidth part being active at a given time. If a UE is configured with a supplementary uplink, the UE can in addition be configured with up to four bandwidth parts in the supplementary uplink with a single supplementary uplink bandwidth part being active at a given time. The UE shall not transmit PUSCH or PUCCH outside an active bandwidth part. For an active cell, the UE shall not transmit SRS configured by *SRS-Resource* outside an active bandwidth part.

Unless otherwise noted, the description in this specification applies to each of the bandwidth parts. When there is no risk of confusion, the index $μ$ may be dropped from $N\_{BWP,i}^{start,μ}$, $N\_{BWP,i}^{size,μ}$, $N\_{grid,x}^{start,μ}$, and $N\_{grid,x}^{size,μ}$.

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