**3GPP TSG-RAN4 Meeting #116 *R4-251XXXX***

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

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.133** | **CR** | **DRAFT** | **rev** | **1** | **Current version:** | **19.1.0** |  |
|  | | | | | | | | |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)*** *on using this form: comprehensive instructions can be found at  <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\_ATG\_enh-Core) draftCR to 38.133 Introduce requirement applicability and cell re-selection requirement for ATG CA | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | CMCC | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_ATG\_enh-Core | | | | |  | ***Date:*** | | | 2025-07-31 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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:*** | | Due to R19 ATG support CA feature, the requirement applicability and cell re-selection requirement shall be updated.  RAN4#112bis WF R4-2416852  Agreement:  No need to provide co-location information to ATG UE at least in Rel-19.  Note: The co-located scenario will be captured in the CR. | | | | | | | | |
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| ***Summary of change:*** | | Introduce requirement applicability and cell re-selection requirement for ATG CA | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The R19 ATG spec will not be completed | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.6.16, 4.2D, B.3.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 38.533 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Revised from R4-2510016 | | | | | | | | |

**<Start of change#1>**

### 3.6.16 Applicability of requirements for ATG

The requirements in ATG specific clauses apply to an ATG UE operating in FR1 NR SA including co-located intra-band DL CA and co-located inter-band DL CA operation mode at an altitude of at-least 3km.

**<End of change#1>**

**<Start of change#2>**

## 4.2D Cell Re-selection for ATG

### 4.2D.1 Introduction

The cell reselection procedure allows the UE to select a more suitable cell and camp on it.

When the UE is in either *Camped* *Normally* state or *Camped on Any Cell* state on a cell, the UE shall attempt to detect, synchronise, and monitor intra-frequency and inter-frequency cells indicated by the serving cell. For intra-frequency and inter-frequency cells, the serving cell may provide explicit neighbour list, or only carrier frequency information and bandwidth information. UE measurement activity is also controlled by measurement rules defined in TS 38.304 [1], allowing the UE to limit its measurement activity.

In the requirements of clause 4.2D, the exceptions for side conditions apply as follows:

- for the UE capable of CA, the applicable exceptions for side conditions are specified in Annex B, clause B.3.2.1, for UE supporting CA in FR1.

**<End of change#2>**

**<Start of change#3>**

## B.3.2 Receiver sensitivity relaxation for CA

### B.3.2.1 Receiver sensitivity relaxation for UE supporting CA in FR1

For a UE supporting inter-band carrier aggregation configuration with uplink in NR band, if there is a relaxation of receiver sensitivity ΔRIB,c>0 dB as defined in clause 7.3A.3 of TS 38.101-1 [18], the relevant side conditions specifying received power levels (SSB\_RP and Io) shall be increased by the amount Δ=ΔRIB,c defined for the corresponding downlink NR bands.

For a ATG UE supporting inter-band carrier aggregation configuration with uplink in NR band, if there is a relaxation of receiver sensitivity ΔRIB,c>0 dB as defined in clause 7.3J.2A.2 of TS 38.101-1 [18], the relevant side conditions specifying received power levels (SSB\_RP and Io) shall be increased by the amount Δ=ΔRIB,c defined for the corresponding downlink NR bands.

For a UE supporting CA configuration in FR1, the requirement in this clause applies for both SC and CA operation.

### B.3.2.2 Receiver sensitivity relaxation for UE configured with CA in FR1

#### B.3.2.2.1 Inter-band carrier aggregation

For a UE configured with inter-band carrier aggregation with active uplink in NR band, if there is a relaxation of receiver sensitivity ΔRIB,c>0 dB as defined in clause 7.3A.3 of TS 38.101-1 [18], the relevant side conditions specifying received power levels (SSB\_RP and Io) shall be increased by the amount Δ=ΔRIB,c defined for the corresponding downlink NR bands.

For a ATG UE configured with inter-band carrier aggregation with active uplink in NR band, if there is a relaxation of receiver sensitivity ΔRIB,c>0 dB as defined in clause 7.3J.2A.2 of TS 38.101-1 [18], the relevant side conditions specifying received power levels (SSB\_RP and Io) shall be increased by the amount Δ=ΔRIB,c defined for the corresponding downlink NR bands.

If the relaxation Δ specified in this clause applies, then the relaxation specified in clause B.3.2.1 should not be applied.

**<End of change#3>**