**3GPP TSG-WG Meeting #111 *R4-2408040***

**Fukuoka, Japan, May 20 – May 24, 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-4** | **CR** | **draftCR** | **rev** | **-** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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:*** | Draft CR on high priority search with Inactive mode eDRX for eRedCap UEs | | | | | | | | | |
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| ***Source to WG:*** | Qualcomm | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_redcap\_enh-Core | | | | |  | ***Date:*** | | | 2024-05-21 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | High priority search with eDRX in INACTIVE mode.  CR R4-2410142 introduces changes for high priority search with eDRX in IDLE and INACTIVE mode for R17. This CR address the changes needed for high priority search in INACTIVE mode for eDRX>10.24s in addition to the changes made in R4-2410142. | | | | | | | | |
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| ***Summary of change:*** | | Updated high priority search requirements with eDRX>10.24s in INACTIVE mode. | | | | | | | | |
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| ***Consequences if not approved:*** | | Incomplete requirements | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.2.2.7, 5.1.2.7, 5.1B.2.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

#### Start of change 1

4.2.2.7 General requirements

When configured with eDRX\_IDLE, the UE shall search every layer of higher priority at least every Thigher\_priority\_search, where Thigher\_priority\_search is defined as follows:

* Thigher\_priority\_search = max(60, 15\*eDRX\_IDLE cycle length) \* Nlayers seconds if eDRX\_IDLE cycle ≤ 10.24 s,
* Thigher\_priority\_search = max(60, ceil (15/NDRX-PTW)\*eDRX\_IDLE cycle length) \* Nlayers seconds if eDRX\_IDLE cycle > 10.24 s, where NDRX-PTW is the number of DRX cycles within a single PTW.

Otherwise if the UE is not configured with eDRX\_IDLE cycle, the UE shall search every layer of higher priority at least every Thigher\_priority\_search = (60 \* Nlayers) seconds.

Nlayers is the total number of higher priority NR and E-UTRA carrier frequencies broadcasted in system information. For a UE configured with early measurement reporting, while T331 is running, Nlayers is the combined total number of higher priority NR and E-UTRA carrier frequencies broadcasted in system information and carriers configured for idle mode CA measurements.

Note: combined total number means that if a carrier is a high priority carrier and additionally a carrier configured for idle mode CA measurements, it only counts as one carrier.

#### End of change 1

#### Start of change 2

#### 5.1.2.7 General requirements

When the UE is not configured with eDRX\_INACTIVE:

- If UE is not configured to perform PRS measurement, or if UE is configured to perform PRS measurement and supports *parallelPRS-MeasRRC-Inactive-r17*, the requirements corresponding to UE not configured with eDRX\_IDLE cycle in clause 4.2.2.7 shall apply.

- If UE is configured to perform PRS measurement but does not support *parallelPRS-MeasRRC-Inactive-r17*, the requirements corresponding to UE not configured with eDRX\_IDLE cycle in clause 4.2.2.7 shall apply with Nlayers being replaced with Nlayers + 1.

When the UE is configured with eDRX\_INACTIVE:

- If UE is not configured to perform PRS measurement, or if UE is configured to perform PRS measurement and supports *parallelPRS-MeasRRC-Inactive-r17*, the requirements in clause 4.2.2.7 shall apply with eDRX\_IDLE replaced with eDRX\_INACTIVE.

- If UE is configured to perform PRS measurement but does not support *parallelPRS-MeasRRC-Inactive-r17*, the requirements in clause 4.2.2.7 shall apply with Nlayers being replaced with Nlayers + 1 and eDRX\_IDLE replaced with eDRX\_INACTIVE.

#### End of change 2

#### Start of change 3

#### 5.1B.2.7 General requirements

The requirements in sub-clause 5.1.2.7 shall apply.

#### End of change 3