**3GPP TSG-RAN2 Meeting #125 *R2-240x***

**Athens, Greece, 26th Feb 2024 - 1st Mar 2024**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.331** | **CR** | **draftCR** | **rev** | **-** | **Current version:** | **18.0.0** |  |
|  | | | | | | | | |
| *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 | **X** | Core Network |  |

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| ***Title:*** | UE capability corrections for NR Support for UAV (Uncrewed Aerial Vehicles) | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm Incorporated | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_UAV-Core | | | | |  | ***Date:*** | | | 2024-03-08 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | UE capability corrections for NR UAV WI | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Following agreements from RAN2#125 are captured (i.e. Editor’s Notes are removed)  **Agreements:**   1. <<skip>> 2. For both NR and LTE: Introduce optional per UE capability to indicate support of the mechanisms defined for cells broadcasting aerial-specific emission list. For nr-NS-PmaxListAerial-r18, keep it as per-UE optional capability (both LTE and NR) with No FDD/TDD diff and No FR1/FR2 diff. Remove Editor’s Note. Also capture description in TS 38.306. 3. sl-A2X-Service-r18 capability is per UE. This implies that the UE doesn’t support both SL V2X/ProSe and A2X, but can be revisited when there is a need to support both. | | | | | | | | |
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| ***Consequences if not approved:*** | | NR UAV UE capability specifications remain ambiguous with Editor’s Notes | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.3.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 38.331 CR 4563 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This draftCR is merged in capability mega CR XX in R2-YY. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

Start of Changes

### 6.3.3 UE capability information elements

<<unchaged text skipped>>

#### – *AerialParameters*

The IE *AerialParameters* is used to convey the capabilities supported by the UE for aerial operation.

*AerialParameters* information element

-- ASN1START

-- TAG-AERIALPARAMETERS-START

AerialParameters-r18 ::= SEQUENCE {

-- Support of Aerial UE features

aerialUE-Capability-r18 ENUMERATED {supported} OPTIONAL,

-- Support of altitude measurement and event H1/H2-triggered reporting

altitudeMeas-r18 ENUMERATED {supported} OPTIONAL,

-- Support of altitude based measurement configuration of SSB-ToMeasure

altitudeBasedSSB-ToMeasure-r18 ENUMERATED {supported} OPTIONAL,

-- Support of events A3H1, A3H2, A4H1, A4H2, A5H1, A5H2

eventAxHy-r18 ENUMERATED {supported} OPTIONAL,

-- Support of flight path reporting

flightPathReporting-r18 ENUMERATED {supported} OPTIONAL,

-- Support of flight path availability indication via UAI

flightPathAvailabilityIndicationUAI-r18 ENUMERATED {supported} OPTIONAL,

-- Support of numberOfTriggeringCells for eventA3, eventA4, and eventA5, and additionally, if the UE supports eventAxHy-r18,

-- support of numberOfTriggeringCells for eventA3H1, eventA3H2, eventA4H1, eventA4H2, eventA5H1, and eventA5H2

multipleCellsMeasExtension-r18 ENUMERATED {supported} OPTIONAL,

-- Support of handling aerial-specific Ns value(s) and Pmax list broadcasted by the cell

nr-NS-PmaxListAerial-r18 ENUMERATED {supported} OPTIONAL,

-- Support of reporting only the measurement report corresponding to the event with the smallest value between the

-- altitude of the UAV and the altitude threshold for which the altitude-related entering condition e.g. A3H1-2 is satisfied, when

-- multiple events of the same type (Hx or AxHy) for the same MO (for AxHy) are triggered simultaneously.

simulMultiTriggerSingleMeasReport-r18 ENUMERATED {supported} OPTIONAL,

-- Support of A2X service(s) using PC5 Sidelink and dedicated resource pool for A2X service(s)

sl-A2X-Service-r18 ENUMERATED {brid, daa, bridAndDAA} OPTIONAL,

...

}

-- TAG-AERIALPARAMETERS-STOP

-- ASN1STOP

<<unchaged text skipped>>

End of Changes