**3GPP TSG-RAN WG2 Meeting #117-e *draftR2-2203953***

**Electronic meeting, February 21 – March 3, 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **36.306** | **CR** | **1845** | **rev** | **-** | **Current version:** | **16.7.0** |  |
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| *For* [***HELP***](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 capabilities for the support of NR 71GHz | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Apple Inc | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_ext\_to\_71GHz-Core | | | | |  | ***Date:*** | | | 2022-02-28 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)*  *Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Introduction of LTE UE Capabilities for NR operation up to 71GHz | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Introduce the following LTE UE Capabilities for NR operation up to 71GHz:   * Clarify that the following existing RAN2 determined UE capabilities are applicable only to TDD-FR2-1:   + *eutra-5GC-HO-ToNR-TDD-FR2-r15*   + *eutra-EPC-HO-ToNR-TDD-FR2-r15*   + *ims-VoiceOverNR-FR2-r15*   + *ce-EUTRA-5GC-HO-ToNR-TDD-FR2-r16* * Add the below new capabilities for Rel-17 TDD-FR2-2 operation:   + *eutra-5GC-HO-ToNR-TDD-FR2-2-r17*   + *eutra-EPC-HO-ToNR-TDD-FR2dot2-r17*   + *ims-VoiceOverNR-FR2dot2-r17*   + *ce-EUTRA-5GC-HO-ToNR-TDD-FR2dot2-r17* | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | UE capabilities required by NR FR2-2 are not introduced in LTE | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.3.34 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS/TR 36.331 CR XXX | | |
| ***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 FIRST CHANGE

### 4.3.34 Inter-RAT Parameters NR

#### 4.3.34.1 *en-DC-r15*

This field indicates whether UE supports E-UTRA NR Dual Connectivity as specified in TS 37.340 [38].

#### 4.3.34.2 *supportedBandListEN-DC-r15*

Only applicable if the UE supports E-UTRA NR Dual Connectivity or NG-RAN E-UTRA-NR Dual Connectivity. This field includes the supported NR bands as defined in TS 38.101-1 [33] and TS 38.101-2 [34]. The presence of this field also indicates that the UE can perform both NR SS-RSRP and SS-RSRQ measurement in the included NR band(s) as specified in TS 38.215 [36].

#### 4.3.34.3 *supportedBandListNR-SA-r15*

This field indicates whether UE supports standalone NR, as specified in TS 38.331 [35], and includes the supported NR bands as defined in TS 38.101-1 [33] and TS 38.101-2 [34]. The presence of this field also indicates that the UE can perform both NR SS-RSRP and SS-RSRQ measurement in the included NR band(s) as specified in TS 38.215 [36].

#### 4.3.34.4 *eutra-5GC-HO-ToNR-FDD-FR1-r15*

This field indicates whether the UE supports handover from E-UTRA/5GC to NR FDD FR1. It is mandatory for UEs of this release of the specification if the UE supports the associated RATs and if the UE supports *eutra-5GC-r15*.

#### 4.3.34.5 *eutra-5GC-HO-ToNR-TDD-FR1-r15*

This field indicates whether the UE supports handover from E-UTRA/5GC to NR TDD FR1. It is mandatory for UEs of this release of the specification if the UE supports the associated RATs and if the UE supports *eutra-5GC-r15*.

#### 4.3.34.6 *eutra-5GC-HO-ToNR-FDD-FR2-r15*

This field indicates whether the UE supports handover from E-UTRA/5GC to NR FDD FR2. It is mandatory for UEs of this release of the specification if the UE supports the associated RATs and if the UE supports *eutra-5GC-r15*.

#### 4.3.34.7 *eutra-5GC-HO-ToNR-TDD-FR2-r15*

This field indicates whether the UE supports handover from E-UTRA/5GC to NR TDD FR2-1 as specified in TS 38.101-x [xx]. It is mandatory for UEs of this release of the specification if the UE supports the associated RATs and if the UE supports *eutra-5GC-r15*.

#### 4.3.34.8 *eutra-EPC-HO-ToNR-FDD-FR1-r15*

This field indicates whether the UE supports handover from E-UTRA/EPC to NR FDD FR1. It is mandatory for UEs of this release of the specification if the UE supports the associated RATs.

#### 4.3.34.9 *eutra-EPC-HO-ToNR-TDD-FR1-r15*

This field indicates whether the UE supports handover from E-UTRA/EPC to NR TDD FR1. It is mandatory for UEs of this release of the specification if the UE supports the associated RATs.

#### 4.3.34.10 *eutra-EPC-HO-ToNR-FDD-FR2-r15*

This field indicates whether the UE supports handover from E-UTRA/EPC to NR FDD FR2. It is mandatory for UEs of this release of the specification if the UE supports the associated RATs.

#### 4.3.34.11 *eutra-EPC-HO-ToNR-TDD-FR2-r15*

This field indicates whether the UE supports handover from E-UTRA/EPC to NR TDD FR2-1 as specified in TS 38.101-x [xx]. It is mandatory for UEs of this release of the specification if the UE supports the associated RATs.

#### 4.3.34.12 *sa-NR-r15*

This field indicates whether the UE supports standalone NR as specified in TS 38.331 [35].

#### 4.3.34.13 *ims-VoiceOverNR-FR1-r15*

This field indicates whether the UE supports IMS voice over NR FR1.

#### 4.3.34.14 *ims-VoiceOverNR-FR2-r15*

This field indicates whether the UE supports IMS voice over NR FR2-1 as specified in TS 38.101-x [xx].

#### 4.3.34.15 *eventB2-r15*

This field defines whether the UE supports event B2. In this release of specification, it is mandatory for a UE supporting NR SA operation to support *eventB2-r15*.

#### 4.3.34.16 *ss-SINR-Meas-NR-FR1-r15*

This field indicates whether the UE can perform NR FR1 SS-SINR measurement as specified in TS 38.215 [36].

#### 4.3.34.17 *ss-SINR-Meas-NR-FR2-r15*

This field indicates whether the UE can perform NR FR2 SS-SINR measurement as specified in TS 38.215 [36].

4.3.34.18 *ng-EN-DC-r15*

This field indicates whether UE supports NG-RAN E-UTRA-NR Dual Connectivity as specified in TS 37.340 [38].

#### 4.3.34.19 *nr-HO-ToEN-DC-r16*

This field indicates whether the UE supports inter-RAT handover from NR to EN-DC while NR-DC or NE-DC is not configured as defined in TS 37.340 [38]. It is mandatory to support inter-RAT handover from NR to EN-DC if the UE supports E-UTRA NR Dual Connectivity.

#### 4.3.34.20 *ce-EUTRA-5GC-HO-ToNR-FDD-FR1-r16*

This field indicates whether the UE supports handover from E-UTRA/5GC in coverage enhancement mode A or B to NR FDD FR1. A UE indicating support of *ce-EUTRA-5GC-HO-ToNR-FDD-FR1-r16* shall also indicate support of *ce-EUTRA-5GC-r16*. This feature is only applicable if the UE supports a UE Category other than Category M1 and M2.

#### 4.3.34.21 *ce-EUTRA-5GC-HO-ToNR-TDD-FR1-r16*

This field indicates whether the UE supports handover from E-UTRA/5GC in coverage enhancement mode A or B to NR TDD FR1. A UE indicating support of *ce-EUTRA-5GC-HO-ToNR-TDD-FR1-r16* shall also indicate support of *ce-EUTRA-5GC-r16*. This feature is only applicable if the UE supports a UE Category other than Category M1 and M2.

#### 4.3.34.22 *ce-EUTRA-5GC-HO-ToNR-FDD-FR2-r16*

This field indicates whether the UE supports handover from E-UTRA/5GC in coverage enhancement mode A or B to NR FDD FR2-1 as specified in TS 38.101-x [xx]. A UE indicating support of *ce-EUTRA-5GC-HO-ToNR-FDD-FR2-r16* shall also indicate support of *ce-EUTRA-5GC-r16*. This feature is only applicable if the UE supports a UE Category other than Category M1 and M2.

#### 4.3.34.23 *ce-EUTRA-5GC-HO-ToNR-TDD-FR2-r16*

This field indicates whether the UE supports handover from E-UTRA/5GC in coverage enhancement mode A or B to NR TDD FR2. A UE indicating support of *ce-EUTRA-5GC-HO-ToNR-TDD-FR2-r16* shall also indicate support of *ce-EUTRA-5GC-r16*. This feature is only applicable if the UE supports a UE Category other than Category M1 and M2.

#### 4.3.34.24 *extendedBand-n77-r16*

This field is only applicable for UEs that indicate support for band n77. If present, the UE supports the restriction to 3450 - 3550 MHz and 3700 - 3980 MHz ranges of band n77 in the USA as specified in Note 12 of Table 5.2-1 in TS 38.101-1 [33]. If absent, the UE supports only restriction to the 3700 - 3980 MHz range of band n77 in the USA. A UE that indicates this field shall also support NS value 55 as specified in TS 38.101-1 [33].

#### 4.3.34.25 *eutra-5GC-HO-ToNR-TDD-FR2-2-r17*

This field indicates whether the UE supports handover from E-UTRA/5GC to NR TDD FR2-2 as specified in TS 38.101-x[xx]. A UE that indicates this field also supports *eutra-5GC-r15*.

#### 4.3.34.26 *eutra-EPC-HO-ToNR-TDD-FR2-2-r17*

This field indicates whether the UE supports handover from E-UTRA/EPC to NR TDD FR2-2 as specified in TS 38.101-x[xx].

#### 4.3.34.27 *ims-VoiceOverNR-FR2-2-r17*

This field indicates whether the UE supports IMS voice over NR FR2-2 as specified in TS 38.101-x[xx].

#### 4.3.34.28 *ce-EUTRA-5GC-HO-ToNR-TDD-FR2-2-r17*

This field indicates whether the UE supports handover from E-UTRA/5GC in coverage enhancement mode A or B to NR FDD FR2-2 as specified in TS 38.101-x[xx]. A UE indicating support of *ce-EUTRA-5GC-HO-ToNR-TDD-FR2-2-r17* shall also indicate support of *ce-EUTRA-5GC-r16*. This feature is only applicable if the UE supports a UE Category other than Category M1 and M2.

END OF THE CHANGE