**3GPP TSG- Meeting #102-e *R1-2005314***

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** | **draft** | **rev** | **-** | **Current version:** |  |  |
|  | | | | | | | | |
| *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:*** |  | | | | | | | | | |
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| ***Source to WG:*** | Keysight Technologies | | | | | | | | | |
| ***Source to TSG:*** | R1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_OTA-UEmeasCore | | | | |  | ***Date:*** | | | 2020-08-03 |
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| ***Category:*** | **F** |  | | | | | ***Release:*** | | |  |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | SS-RSARP measurement in clause 5.1.31 is defined as the antenna relative phase between receiver branches.  NOTE 2 in the SS-RSARP definition says: “The power per resource element is determined from the energy received during the useful part of the symbol, excluding the CP”.  This note should be modified so that it correctly reflects that SS-RSARP is a phase measurement instead of a power one. | | | | | | | | |
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| ***Summary of change:*** | | Modify NOTE 2 in SS-RSARP measurement definition (section 5.1.31) by changing ‘power’ with ‘phase’. | | | | | | | | |
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| ***Consequences if not approved:*** | | Unclear specification of SS-RSARP measurement. | | | | | | | | |
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| ***Clauses affected:*** | | 5.1.31 | | | | | | | | |
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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:*** | | **Isolated Impact Analysis:**  The changes in this CR are according to the common understanding in RAN1 and does not change the existing functionality | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

**<Unchanged parts are omitted>**

### 5.1.31 SS reference signal antenna relative phase (SS-RSARP)

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| **Definition** | SS reference signal antenna relative phase (SS-RSARP) is defined as the difference of the average phase of the receive signals on the resource elements that carry secondary synchronization signals (SS) received by the reference individual receiver branch (Rx0) and the average phase of the receive signals on the resource elements that carry secondary synchronization signals (SS) received by one other individual receiver branch (Rx1 ... Rxn). The measurement time resource(s) for SS-RSARP are confined within SS/PBCH Block Measurement Time Configuration (SMTC) window duration.  SS-RSARP shall be measured only among the reference signals corresponding to SS/PBCH blocks with the same SS/PBCH block index and the same physical-layer cell identity.  If higher-layers indicate certain SS/PBCH blocks for performing SS-RSARP measurements, then SS-RSARP is measured only from the indicated set of SS/PBCH block(s).  For frequency range 1, the reference point for the SS-RSARP shall be the antenna connector of the UE. For frequency range 2, SS-RSARP shall be measured based on the combined signal from antenna elements corresponding to a given receiver branch. |
| **Applicable for** | RRC\_CONNECTED intra-frequency |

NOTE 1: The number of resource elements within the measurement period that are used by the UE to determine SS-RSARP is left up to the UE implementation with the limitation that corresponding measurement accuracy requirements have to be fulfilled.

NOTE 2: The phase per resource element is determined from the energy received during the useful part of the symbol, excluding the CP.

NOTE 3: This UE measurement is defined only for conformance test purposes. It is described along with test control entity signalling in [14].

**<Unchanged parts are omitted>**