**3GPP TSG-RAN WG2 Meeting #112e *R2-2010959***

**, 2nd – 13th November, 2020**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **36.304** | **CR** | **0818** | **rev** | **-** | **Current version:** | **16.2.0** |  |
|  | | | | | | | | |
| *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:*** | Correction on inter-frequency operation | | | | | | | | | |
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| ***Source to WG:*** | OPPO | | | | | | | | | |
| ***Source to TSG:*** | RAN2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | | 2020-11-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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)* | |
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| ***Reason for change:*** | | According to the RAN2#112-E discussion, cell selection, intra- and inter-frequency cell reselection are all valid use cases of non-serving frequency measurement for NR Sidelink Communication. | | | | | | | | |
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| ***Summary of change:*** | | Clarify in 11.4 and 11.4.1 that for NR-V2X, the non-serving frequency measurement is not limited to intra-frequency cell reselection, i.e., also applicable to inter-frequency cell reselection.  **Impact Analysis**  Impacted 5G architecture options: LTE SA, Sidelink  Impacted functionality: non-serving frequency measurement  Inter-operability:  1. If the network is implemented according to the CR and the UE is not, UE cannot perform inter-frequency cell reselection based on the non-serving frequency measurement.  2. If the UE is implemented according to the CR and the network is not, there is no inter-operability issue. | | | | | | | | |
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| ***Consequences if not approved:*** | | Misunderstanding that the non-serving frequency measurement is limited to intra-frequency cell reselection. | | | | | | | | |
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| ***Clauses affected:*** | | 11.4, 11.4.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS/TR 38.306 CR 0196 | | |
| ***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 Change*

11.4 Cell selection and reselection for sidelink

The requirements defined in this clause for sidelink operation apply for UEs in RRC\_IDLE and in RRC\_CONNECTED.

When UE is interested to perform sidelink communication or sidelink discovery announcement on non-serving frequency, it shall perform measurements on that frequency for cell selection and intra-frequency reselection purpose in accordance with TS 36.133 [10]. When UE is interested to perform V2X sidelink communication on non-serving frequency, it may perform measurements on that frequency or the frequencies which can provide inter-carrier V2X sidelink configuration for that frequency for cell selection and intra-frequency reselection purpose in accordance with TS 36.133 [10]. When UE is interested to perform NR sidelink communication on non-serving frequency, it may perform measurements on that frequency or the frequencies which can provide inter-carrier NR sidelink configuration for that frequency for cell selection and reselection purpose in accordance with TS 36.133[10].

If the UE detects at least one cell on the frequency which UE is configured to perform sidelink operation on fulfilling the S criterion in accordance with clause 11.4.1, it shall consider itself to be in-coverage for sidelink operation on that frequency. If the UE cannot detect any cell on that frequency meeting the S criterion, it shall consider itself to be out-of-coverage for sidelink operation on that frequency.

If the UE detects at least one cell on the frequency which UE is configured to perform NR sidelink communication on fulfilling the S criterion in accordance with clause 11.4.1, it shall consider itself to be in-coverage for NR sidelink communication on that frequency. If the UE cannot detect any cell on that frequency meeting the S criterion, it shall consider itself to be out-of-coverage for NR sidelink communication on that frequency.

If the UE has selected a cell on a non-serving frequency for sidelink communication or V2X sidelink communication or sidelink discovery announcement, it shall perform additional intra-frequency reselection process to select a better cell for sidelink operation on that frequency in accordance with clause 11.4.1.

If the UE has selected a cell on a non-serving frequency for NR sidelink communication, it shall perform additional reselection process to select a better cell for sidelink operation in accordance with clause 11.4.1.

NOTE 1: The UE may consider the carrier pre-configured for sidelink communication or V2X sidelink communication, or the frequencies pre-configured for providing inter-carrier V2X sidelink configuration to have the highest cell reselection priority in accordance with clause 5.2.4.1.

NOTE 2: If the frequency the UE is configured to perform sidelink communication on is a serving frequency, the UE uses the serving cell on that frequency for the sidelink operation.

11.4.1 Parameters used for cell selection and reselection triggered for sidelink

When evaluating S criterion, R criterion (ranking) or inter-frequency cell reselection criterion, as defined in clause 5.2.3.2, clause 5.2.4.6 and clause 5.2.4.5 respectively, for cell selection/reselection triggered for sidelink communication or V2X sidelink communication or sidelink discovery announcement or NR sidelink communication on a non-serving frequency, UE shall perform the evaluation as follows:

- if the UE intends to perform sidelink discovery announcement and it is configured with *discCellSelectionInfo* applicable for that frequency as specified in TS 36.331 [3], the UE shall use cell selection/reselection parameters included in the *discCellSelectionInfo* for the evaluation, and for a parameter used in the evaluation but not included in the *discCellSelectionInfo* applicable for thatfrequency, UE shall apply zero value.

- else, the UE shall use cell selection/reselection parameters broadcast by the concerned cell (i.e. selected cell for the sidelink operation) for the evaluation.

*End of Change*