**3GPP TSG RAN WG1 #110bis-e R1-22xxxxx**

**Electronic Meeting, October 10th – 19th, 2022**

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| *CR-Form-v12.1* |
| **[DRAFT] CHANGE REQUEST** |
|  |
|  | **38.211** | **CR** | **xxxx** | **rev** |  | **Current version:** | **17.3.0** |  |
|  |
| *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 sidelink timing |
|  |  |
| ***Source to WG:*** | Moderator (LG Electronics) |
| ***Source to TSG:*** | RAN WG1 |
|  |  |
| ***Work item code:*** | NR\_SL\_enh-Core |  | ***Date:*** | 2022-10-17 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***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 canbe 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:*** | CR R4-2204147 was agreed by RAN4, after which the definitions of $N\_{TA,offset}$ values in the RAN1 and RAN4 specifications are no longer consistent in the case of gNB based synchronization. If sidelink and uplink transmissions are in the same band, $N\_{TA,offset}$ value is not equal to zero, but the value is defined in Table 7.1.2-2 of TS 38.133. |
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| ***Summary of change:*** | $N\_{TA,offset}$ values for sidelink are no longer specified in TS 38.211 but it is stated that values can be found in TS 38.133 |
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| ***Consequences if not approved:*** | $N\_{TA,offset}$ values for sidelink are not consistent in the RAN1 and RAN4 specifications. |
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| ***Clauses affected:*** | 8.5 |
|  |  |
|  | **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:*** |  |

**<Unchanged parts omitted>**

8.5 Timing

Transmission of a sidelink radio frame number $i$ from the UE shall start $(N\_{TA,SL}+N\_{TA,offset})∙T\_{c}$ seconds before the start of the corresponding timing reference frame at the UE. The UE is not required to receive sidelink or downlink transmissions earlier than the value of $N\_{TA,offset}$, which is given in [12, TS 38.133], after the end of a sidelink transmission.

For sidelink transmissions:

If the UE has a serving cell fulfilling the S criterion according to clause 8.2 of [13, TS 38.304]

- The timing of reference radio frame $i$ equals that of downlink radio frame $i$ in the cell with the same uplink carrier frequency as the sidelink and

- $N\_{TA,offset}$ is given by clause 4.3.1 of [TS 38.211],

Otherwise

- The timing of reference radio frame *i* and $N\_{TA,offset}$ value are given by clause 12.2.2, 12.2.3, 12.2.4 or 12.2.5 of [12, TS 38.133].

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**Figure 8.5-1: Sidelink timing relation**

The quantity $N\_{TA,SL}$ equals to 0.

**<Unchanged parts omitted>**