**3GPP TSG-RAN WG2 Meeting # 117-e *R2-220xxxx***

 **Electronic Meeting, 21st February– 3rd March, 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **2960** | **rev** | **1** | **Current version:** | **16.7.0** |  |
|  |
| *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:***  | Clarification on *HighSpeedConfig* for HST |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon, CMCC |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | NR\_HST-Core |  | ***Date:*** | 2022-02-21 |
|  |  |  |  |  |
| ***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 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:*** | In Rel-16, some enhancement on RRM measurement and demodulation processing was introduced for HST with an IE *highSpeedMeasFlag-r16* and *highSpeedDemodFlag-r16* signalled per serving cell basis in both *ServingCellConfigCommonSIB* and *ServingCellConfigCommon*. However the Rel-16 HST only considers single carrier scenario.  |
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| ***Summary of change:*** | Clarify in the field description of *highSpeedMeasFlag* and *highSpeedDemodFlag* that this parameter only applies to SpCell.**Impact analysis****Impacted 5G architecture options:** NR SA, NR-DC, NE-DC, (NG)EN-DC**Impacted functionality:**HST**Inter-operability:** If the network implements the change but not the UE, there is no inter-operability issue.If the UE implements the change but not the network, there is no inter-operability issue.  |
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| ***Consequences if not approved:*** | UE may apply *highSpeedMeasFlag* and *highSpeedDemodFlag* to SCell and PSCell, which should not be supported. |
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| ***Clauses affected:*** | 6.3.2 |
|  |  |
|  | 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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

### 6.3.2 Radio resource control information elements

– *HighSpeedConfig*

The IE *HighSpeedConfig* is used to configure parameters for high speed scenarios.

***HighSpeedConfig* information element**

-- ASN1START

-- TAG-HIGHSPEEDCONFIG-START

HighSpeedConfig-r16 ::= SEQUENCE {

 highSpeedMeasFlag-r16 ENUMERATED {true} OPTIONAL, -- Need R

 highSpeedDemodFlag-r16 ENUMERATED {true} OPTIONAL, -- Need R

 ...

}

-- TAG-HIGHSPEEDCONFIG-STOP

-- ASN1STOP

| ***HighSpeedConfig* field descriptions** |
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| ***highSpeedMeasFlag***If the field is present and UE supports *measurementEnhancement-r16*, the UE shall apply the enhanced intra-NR and inter-RAT EUTRAN RRM requirements to support high speed up to 500 km/h as specified in TS 38.133 [14].If the field is present and UE supports *intraNR-MeasurementEnhancement-r16*, the UE shall apply enhanced intra-NR RRM requirement to support high speed up to 500 km/h as specified in TS 38.133 [14].If the field is present and UE supports *interRAT-MeasurementEnhancement-r16*, the UE shall apply enhanced inter-RAT EUTRAN RRM requirement to support high speed up to 500 km/h as specified in TS 38.133 [14].This parameter only applies to SpCell. |
| ***highSpeedDemodFlag***If the field is present, the UE shall apply the enhanced demodulation processing for HST-SFN joint transmission scheme with velocity up to 500km/h as specified in TS 38.101-4 [59]. This parameter only applies to SpCell. |