**3GPP TSG-RAN** **WG2 Meeting #112-e R2-200xxxx**

**Electronic, 2nd – 13rd November 2020**

**Agenda Item: 5.4.3**

**Source: Huawei, HiSilicon**

**Title: Summary of offline 026 Rel-16 miscellaneous RAN4 issues**

**Document for: Discussion and decision**

# Introduction

This document summarizes the following offline discussion for Rel-16 R4 related issues.

* [AT112-e][026][R4 NR16] Miscellaneous (Huawei)

 Treat R2-2008747, R2-2010598, R2-2010599, R2-2010358, R2-2008741, R2-2009346, R2-2010226, R2-2009245, R2-2009544

 Intended outcome: Determine agreeable parts. For agreeable parts, agreed CRs.

 Deadline: Intermediate deadline(s) by Rapporteur, Final: Discussion stop at Wed Nov 11, 1200 UTC, If feasible, NR UE caps 38306 38331 deadline Nov 6.

# Contact from companies

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| --- | --- |
| Company | Email |
| Qualcomm Incorporated | Masato Kitazoe <mkitazoe [at] qti.qualcomm.com> |
| MediaTek (Felix) | Chun-Fan.Tsai@mediatek.com |
| Samsung (Seungri Jin) | seungri.jin@samsung.com |
| vivo (Chenli) | Chenli5g@vivo.com |
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# Discussion

## Part 1 discussion: to achieve agreeable principle

Part 1 discussion is focusing on reaching conclusion whether the proposals/CRs can be agreed in principle, and Part 2 discussion would then focus on detailed changes for those agreeable contributions.

### 2.1.1 CGI reading with autonomous gaps

The corresponding LS and CRs are in [1]-[4]. The intention is to capture RAN4’s agreement accordingly.

The CRs in [2][3][4] have common modification to apply 5 seconds to T321 for the case of CGI reading configured by NR towards FR2 cells with autonomous gaps.

The CR in [4] additionally aligned LTE specification to apply the value of 150ms to T321 for the case of CGI reading configured by NR towards EUTRAN cells with autonomous gaps

**Q1-1 Do companies agree to apply 5 seconds to T321 for the case of CGI reading configured by NR towards FR2 cells with autonomous gaps?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Yes/No** | **Comments** |
| Qualcomm Incorporated | Yes |  |
| MediaTek | Yes |  |
| Samsung | Yes |  |
| vivo | Yes |  |
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**Q1-2 Do companies agree to apply 150 ms to T321 for the case of CGI reading configured by NR towards EUTRAN cells with autonomous gaps?**

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| --- | --- | --- |
| **Company** | **Yes/No** | **Comments** |
| Qualcomm Incorporated | No | It is our understanding that RAN4 hasn’t concluded on T321 value. Only CGI identification time is agreed, same as LTE, 150ms. T321 value however needs to take into account other processes that the UE undergoes, e.g. inter-RAT switch back and forth. |
| MediaTek | Yes, but | We are also fine to wait RAN4 to provide the value. |
| Samsung | Yes, but | We are also fine to wait RAN4 to provide the value. |
| vivo |  | We are also fine to wait for further RAN4 inputs. |
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### 2.1.2 Support of HPUE

The corresponding LS and CRs are in [5]-[7]. The main intention is to support capabilities for high power UE.

**Q2-1 Do companies agree with the major principle in [6][7]?**

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| --- | --- | --- |
| **Company** | **Yes/No** | **Comments** |
| Qualcomm Incorporated | No | We understand this has been taken care of in the email discussion 900 before the meeting. |
| MediaTek |  | Since this has been discussed in general capability CR, we don’t have to discuss this here. |
| Samsung |  | Agree with QC. |
| vivo |  | Agree with Qualcomm. |
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### 2.1.3 UL Tx switching clarification

The CR is in [8], and the intention is to clarify the condition of supporting UL Tx switching for CA case.

**Q3 Do companies agree with the major principle of the CR?**

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| --- | --- | --- |
| **Company** | **Yes/No** | **Comments** |
| Qualcomm Incorporated | Yes | This is acceptable compromise. |
| MediaTek | Yes |  |
| Samsung | Yes |  |
| vivo | Yes |  |
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### 2.1.4 CA additional spectrum emission requirements

The CR is in [9], and the main intention is to clarify the limitation that same emission requirements should be applied for each uplink carrier on same band and configured value is applicable for all uplink carriers of same band.

**Q4 Do companies agree with the major principle of the CR?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Yes/No** | **Comments** |
| Qualcomm Incorporated | Yes |  |
| MediaTek | Yes, but | We would like to check whether this is Rel-16 only issue. Do we need this in Rel-15?In the CR cover page on “reason for change” “*In the WI NR\_RF\_FR1-Core a support for CA is being added.*”I assume that NR CA is already supported from Rel-15. Or does it try to say that intra-band CA is introduced in Rel-16 ?  |
| Samsung | Yes |  |
| vivo | Yes | We understand this is only for Rel-16.  |
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##  Part 1 discussion summary

## Part 2 discussion: TBD

To be updated after Phase I discussion

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# Reference

1. [R2-2008747](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_112-e%5CDocs%5CR2-2008747.zip) Reply LS on CGI reading with autonomous gaps (R4-2012156; contact: ZTE) RAN4
2. [R2-2010598](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_112-e%5CDocs%5CR2-2010598.zip) Correction to 38.331 on T321 for autonomous gap based CGI in FR2 ZTE Corporation, Sanechips
3. [R2-2010599](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_112-e%5CDocs%5CR2-2010599.zip) Correction to 36.331 on T321 for autonomous gap based CGI in FR2 ZTE Corporation, Sanechips
4. [R2-2010358](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_112-e%5CDocs%5CR2-2010358.zip) 38331 CR on CGI reading with autonomous gaps Huawei, HiSilicon
5. [R2-2008741](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_112-e%5CDocs%5CR2-2008741.zip) LS on UE capability for PC2 inter-band EN-DC (LTE FDD+NR TDD) (R4-2011787; contact: China Unicom) RAN4
6. [R2-2009346](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_112-e%5CDocs%5CR2-2009346.zip) 38306 CR for the support of EN-DC FDD+TDD HPUE China Unicom, Huawei, HiSilicon
7. [R2-2010226](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_112-e%5CDocs%5CR2-2010226.zip) support of EN-DC TDD-FDD HPUE Huawei, HiSilicon, China Unicom
8. [R2-2009245](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_112-e%5CDocs%5CR2-2009245.zip) CR to add prerequisite of UL Tx switching capability ZTE Corporation, Sanechips
9. [R2-2009544](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_112-e%5CDocs%5CR2-2009544.zip) NR CA additional spectrum emission requirements Nokia, Nokia Shanghai Bell