**3GPP TSG-RAN** **WG2 Meeting #110-e R2-200xxxx**

**Electronic, June 1 – 12, 2020**

**Source: Qualcomm Incorporated**

**Title: Summary of email discussion [AT110e][017][NR15] UE cap Simultaneous SRS antenna and carrier switching**

**Document for: Decision**

**Agenda Item: 5.4.3.1**

# Introduction

This document summarizes the following email discussion.

* [AT110e][017][NR15] UE cap Simultaneous SRS antenna and carrier switching (Qualcomm)

Scope: Treat [R2-2004434](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004434.zip), [R2-2004435](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004435.zip), [R2-2005360](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005360.zip), [R2-2005361](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005361.zip), [R2-2004971](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004971.zip), [R2-2005579](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005579.zip), [R2-2005580](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005580.zip) (proponents are responsible to explain and drive)

Part 1: Decision whether to make corrections or not, identify agreeable corrections. Deadline: June 4, 0700 UTC.

Part 2: For agreeable parts, continuation to agree CRs. Deadline: June 10, 0700 UTC

# Discussion: Part 1 (by June 4, 0700 UTC)

The issue of SRS antenna switching capability during SRS carrier is switched to SRS only SCell was discussed in RAN2#109bis-e.

## Solution for NR

In this meeting, two solutions were submitted.

Solution 1: Reuse the LTE solution ([R2-2004434](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004434.zip), [R2-2005360](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005360.zip); Qualcomm Incorporated)

Solution 2: Allow the UE to signal SRS antenna switching capability for a band where *FeatureSetUplinkId* set to 0 ([R2-2004971](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004971.zip), [R2-2005579](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005579.zip), [R2-2005580](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005580.zip), Huawei et al.)

Companies are requested to indicate if they agree to any of the solutions above.

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| **Company name** | **Agree / Disagree to**  **Solution 1 / 2** | **Comments** |
| Qualcomm Incorporated | Solution 2 | The solution 2 is indeed simpler and better than the solution implemented in LTE. We are ready to withdraw solution 1. |
| Huawei | Solution 2 | Proponent. We think this solution is simpler and would not require extra complexity from the NW side to identify two associated BCs. |
| CATT | Solution 2 | Agree with the above comments that solution 2 is simpler. |
| vivo | Solution 2 | The solution 2 is simpler and clearer than the solution 1. |
| ZTE | Solution 2 | We agree that the solution 2 is simple. The solution 2 may have some limitation to the UE RF as our paper [R2-2004971](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004971.zip) analyzed. Anyway, if the solution 2 could be accepted by UE vendors, it’s also OK for us. |
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## Clarification for LTE ([R2-2004435](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004435.zip), [R2-2005361](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005361.zip))

Based on the company comments seen in RAN2#109bis-e meeting, clarification to LTE specification is proposed ([R2-2004435](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004435.zip), [R2-2005361](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005361.zip); Qualcomm Incorporated). The intention is to clarify how the target band combination where the antenna switching capability is applicable during SRS carrier is switched can be identified.

Companies are requested to indicate if they agree to the CRs.

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| **Company name** | **Agree / Disagree** | **Comments** |
| Qualcomm Incorporated | Agree (proponent) | For LTE, we should stick to the current solution and clarification should be done on top of it. |
| Huawei | Agree | Yes this is our understanding and the clarification could help consistent understanding between the UE and the NW. |
| CATT | Agree |  |
| vivo | Agree | For LTE, the current solution needs this clarification for common understanding between the UE and the network. |
| ZTE | Agree | Yes, we think this clarification is needed. |
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# Discussion: Part 2 (by June 10, 0700 UTC)

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# Conclusion

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# Reference

[1]