**3GPP TSG RAN WG1 Meeting #101-e R1-200xxxx**

**E-Meeting, May 25 – June 5, 2020**

**Agenda Item: 6.2.3.1.1**

**Source: Moderator (Huawei)**

**Title: Text proposal on additional SRS for dual connectivity**

**Document for: Discussion and Decision**

# Introduction

This document provides the text proposal as outcomes of the following email discussion [1]:

[101-e-LTE-LTE\_DL\_MIMO\_EE-01] Support of additional SRS for carrier based switching, dual connectivity and LAA/eMTC by 5/29 – Yubo (Huawei)

* Issues 2, 3, 4 in [R1-2004706](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_101%5CDocs%5CR1-2004706.zip)

# Discussion

## TP on resource reservation to special subframes

**Reason for changes:**

It’s not clear in the spec whether additional SRS can be configured for dual connectivity.

**Summary of changes:**

A UE configured with multiple cell groups is not expected to be configured with additional SRS.

**Specs/sections impacted:**

36.213 sections 5.1.4

**Consequences if not approved:**

There’s ambiguity whether UE configured with multiple cell groups can be configured with additional SRS.

**-----------------------------------------------------Start of Text Proposal-----------------------------------**

*<unchanged parts are omitted>*

5.1.4 Power allocation for EUTRA dual connectivity

If a UE is configured with multiple cell groups, the UE is not expected to be configured with SRS trigger type 2, and

- if the UE supports synchronous dual connectivity but does not support asynchronous dual connectivity, or if the UE supports both synchronous dual connectivity and asynchronous dual connectivity and if the higher layer parameter *powerControlMode* indicates dual connectivity power control mode 1

- if the maximum uplink timing difference between transmitted signals to different serving cells including serving cells belonging to different CGs is equal to or less than the minimum requirement for maximum transmission timing difference for synchronous dual connectivity defined in [10].

- The UE shall use the procedures described in sub clause 5.1.4.1.

- If a PRACH transmission of the UE on the Pcell starting in subframe of MCG overlaps in time domain with another PRACH transmission of the UE starting in subframe  of SCG, and if subframe  and subframe  overlap in time with more than one symbol, and if the total power of both the PRACH transmissions would exceed , the UE shall transmit the PRACH on the Pcell using the preamble transmission power described in Subclause 6.1. The UE may drop or adjust the power of the PRACH transmission in subframe  of SCG such that the total power does not exceed , where is the linear value configured transmitted power for Dual Connectivity for the subframe pair as described in [6]. If the UE drops the PRACH transmission, it sends power ramping suspension indicator to the higher layers. If the UE adjusts the power of PRACH transmission, it may send power ramping suspension indicator to the higher layers.

- if the UE supports both synchronous dual connectivity and asynchronous dual connectivity and if the higher layer parameter *powerControlMode* does not indicate dual connectivity power control mode 1

- The UE shall use the procedures described in sub clause 5.1.4.2 .

- If a PRACH transmission on the Pcell in subframe of MCG overlaps in time another PRACH transmission in subframe of SCG, and if the time difference between the start of the two PRACH transmissions is less than , and if the transmission timing of the PRACH on the Pcell (according to Subclause 6.1.1) is such that the UE is ready to transmit the PRACH on Pcell at least one subframe before subframe of MCG, and if the total power of both the PRACH transmissions exceeds , the UE shall transmit the PRACH on the Pcell using the preamble transmission power PPRACH described in Subclause 6.1. The UE may drop or adjust the power of the PRACH transmission in subframe  of SCG such that the total power does not exceed , where is the linear value configured transmitted power for Dual Connectivity for the subframe pair as described in [6]. If the UE drops the PRACH transmissions, it sends power ramping suspension indicator to the higher layers. If the UE adjusts the power of PRACH transmission, it may send power ramping suspension indicator to the higher layers.

*<unchanged parts are omitted>*

**------------------------------------------------------End of Text Proposal------------------------------------**

# References

1. R1-200xxxx Feature summary on 101-e-LTE-LTE\_DL\_MIMO\_EE-01 Moderator (Huawei)