3GPP TSG RAN WG1 Meeting #104-e R1-210xxxx

**e-Meeting, Jan. 25th – Feb. 5th, 2021**

**Source: Moderator (ZTE)**

Title: FL summary #1 on SRS enhancements

Agenda Item: 8.1.3

Document for: Discussion and Decision

# Antenna switching up to 8Rx

## Resource set configurations

***FL proposal 3-1:***

* *For aperiodic antenna switching SRS, support to configure N <=N\_max resource sets, where totally K resources are distributed in the N resource sets flexibly based on RRC configuration.*
* *For 1T6R, K=6, N\_max = [4], and each resource has 1 port.*
* *For 1T8R, K=8, N\_max = [4], and each resource has 1 port.*
* *For 2T6R, K=3, N\_max = [3], and each resource has 2 ports.*
* *For 2T8R, K=4, N\_max = [4], and each resource has 2 ports.*
* *For 4T8R, K=2, N\_max = [2], and each resource has 4 ports.*
* *At least more than one candidate value for N is supported for each xTyR. FFS the supported candidate values.*
* *FFS extension to increase N\_max for 1T4R, 2T4R, T=R and 1T2R cases*
* *FFS the number of resources and resource sets for semi-persistent and periodic antenna switching SRS*

Companies’ further views are collected as follows.

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| Companies | Views |
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# Coverage and capacity enhancements

***FL Proposal 4-1:*** *For Rel-17 SRS capacity and coverage enhancement, support the following*

* *Increase the maximum number of repetition symbols in one slot and one SRS resource to S*
	+ *Support at least one S value from {8, 10, 12, 14}*
		- *FFS other candidate values*
* *Support to transmit SRS only in* $\frac{1}{P\_{F}}m\_{SRS, B\_{SRS}}$ *contiguous RBs in one OFDM symbol, where* $m\_{SRS, B\_{SRS}}$ *indicates the number of RBs configured by BSRS and CSRS*
	+ *Support at least one PF value from {2, [3], 4, 8}*
		- *FFS other candidate values, e.g., non-integer values for PF*
	+ *Note: SRS sequence shorter than the minimum length supported in the current specification is not pursued.*
	+ *FFS it is applicable to frequency hopping only, or both frequency hopping and non-frequency hopping*
	+ *FFS detailed signaling mechanism to determine PF and the location of the* $\frac{1}{P\_{F}}m\_{SRS, B\_{SRS}} $*RBs, potentially taking non-frequency hopping case into account*
* *Support Comb 8*
	+ *Note: SRS sequence shorter than the minimum length supported in the current specification is not pursued.*
* *Support omitting SRS transmission on the whole* $m\_{SRS, B\_{SRS}}$ *RBs in a frequency hop*
* *FFS whether and if needed, how to use harmonized approach to define the three supported schemes*
* *Note: other schemes for SRS capacity and coverage enhancements are not supported in Rel-17.*

Companies’ further views are collected as follows.

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| Companies | Views |
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# Conclusion