**3GPP TSG RAN WG1 #114** **R1-230xxxx**

**Toulouse, France, August 21st – 25th, 2023**

**Agenda item:** 9.17

**Source:** Samsung

**Title:** Summary of email discussions [114-R18-38.213-NR\_SL\_enh2]

**Document for:** Discussion and decision

# Introduction

The purpose of this document is to collect inputs/comments on the draft CR for TS 38.213 [draftCR\_38213 SL](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_114/Inbox/drafts/9.17%28Other%29/%5B38.213%20draft%20CRs%5D/NR_SL_enh2/R1-230xxxx%20draftCR_38213%20SL.docx) on the introduction of NR sidelink evolution. If a comment on a particular aspect has been made by another company, please do not repeat it until, if needed, after a response.

The first checkpoint is on September 5, UTC 13:00.

# First Round Discussion

Please provide your comments on the draft CR for TS 38.213 [draftCR\_38213 SL](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_114/Inbox/drafts/9.17%28Other%29/%5B38.213%20draft%20CRs%5D/NR_SL_enh2/R1-230xxxx%20draftCR_38213%20SL.docx).

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| Company | Comments |
| LGE | On 16.2.0, according to the following text in the agreement, the definition of P\_CMAX would need to be updated accordingly. For instance, we can add “and is determined for all the S-SSB repetitions, if applicable” for the P\_CMAX part. * For above Alts, $P\_{CMAX}$ is determined according to TS 38.101-1 for transmission of all S-SSB repetitions on all used RB sets

As we know, the value of P\_CMAX could be different based on the assumption on the transmission structure. On 16.2.3, it would be necessary to update the PSFCH power control as per the following agreement.AgreementRel-16/17 PSFCH power control and PSFCH TX/TX prioritization rule are performed across carriers for all PSFCH transmissions over all the aggregated SL carriers at the same time.* The UE does not expect to be provided with a (pre)configuration that would result in different transmit power per PSFCH on different carriers.

For instance, following updates can be considered:A UE with $N\_{sch,Tx,PSFCH}$ scheduled PSFCH transmissions for HARQ-ACK information and conflict information, and capable of transmitting a maximum of $N\_{max,PSFCH}$ PSFCHs, determines a number $N\_{Tx,PSFCH}$ of simultaneous PSFCH transmissions and a power $P\_{PSFCH,k}(i)$ for a PSFCH transmission $k$, $1\leq k\leq N\_{Tx,PSFCH}$, on all the resource pools in PSFCH transmission occasion $i$ on all the active SL BWP $b$ of all the carrier $f$as…For resource pools configured with PSFCH resources overlapping in time for all the carriers, the UE either expects not to be provided with *dl-P0-PSFCH* or *dl-Alpha-PSFCH* in any of the resource pools, or expects to be provided with the same values of *dl-P0-PSFCH* and the same values of *dl-Alpha-PSFCH* for all the resource pools.On 16.3.0, following part need to be moved after the final PSFCH resource determination with some typo correction. In our understanding, dropping PRB belonging to common interlace will be performed after the UE decides the PRBs for actual PSFCH transmission. Moreover, the final determination on PRBs for the actual PFSCH transmission would be selected among PSFCH resources across multiple PRB sets when $N\_{type }^{PSFCH}=N\_{subch }^{PSSCH}$.A PRB $s\_{1}$ in the first interlace is excluded from the resources for a PSFCH transmission, if $|s\_{1}-s\_{2}|\leq 5$ for $μ=10$ or $|s\_{1}-s\_{2}|\leq 2$ for $μ=21$ for any PRB $s\_{2}$ in the PRB subset, and $\left(s\_{high}-s\_{low}\right)\geq 88$ for $μ=10$ or $\left(s\_{high}-s\_{low}\right)\geq 44$ for $μ=21$, where PRB $s\_{high}$ and PRB $s\_{low}$ are the largest and smallest PRB indexes, respectively, in the resources for the PSFCH transmission assuming PRB $s\_{1}$ is excluded. On 16.4, according to the agreement, it would be necessary to clarify the meaning of the lowest subchannel. We can add “index” after “the lowest sub-channel”. **Agreement**For interlace RB-based PSCCH/PSSCH transmission in SL-U, support the following:* Option 1: lowest sub-channel is the sub-channel with smallest sub-channel index
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