3GPP TSG RAN WG1 #100bis-e R1-200xxxx

e-Meeting, April 20th – 30th, 2020

Agenda Item: 7.2.4.2.1

Source: Moderator (Ericsson)

Title: Text proposal for TS 38.212 related to [100b-e-NR-5G\_V2X\_NRSL-Mode-1-04]

Document for: Endorsement

# 1 Introduction

This document contains a text proposal for TS 38.212 implementing the following agreements:

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| --- |
| Agreements:* Counter sidelink index assignment (SAI) is supported.
	+ 2 bits are used for type-2 codebook.
	+ FFS size for type-1 codebook (1 or 2 bits).
	+ The field is always present in DCI format 3\_0.
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The motivation of the TP is as follows:

* Reasons for change: introduction of sidelink assignment index for supporting DCI-based scheduling.
* Summary of changes: a new field (counter sidelink assignment index) is added to DCI format 3\_0.
* Specs/Sections impacted: TS 38.212 Section 3.3 and Section 7.3.1.4.1
* Consequences if not approved: SL HARQ-ACK reporting to the gNB does not work correctly

# 2 Text Proposal

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

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

BCH Broadcast channel

CBG Code block group

CBGTI Code block group transmission information

CG Configured grant

CG-DFI CG downlink feedback information

CG-UCI CG uplink control information

CORESET Control resource set

COT Channel occupancy time

CQI Channel quality indicator

CRC Cyclic redundancy check

CRI CSI-RS resource indicator

CSI Channel state information

CSI-RS CSI reference signal

DAI Downlink assignment index

DCI Downlink control information

DL Downlink

DL-SCH Downlink shared channel

DMRS Dedicated demodulation reference signal

HARQ Hybrid automatic repeat request

HARQ-ACK Hybrid automatic repeat request acknowledgement

LDPC Low density parity check

LI Layer indicator

MCS Modulation and coding scheme

OFDM Orthogonal frequency division multiplex

PBCH Physical broadcast channel

PCH Paging channel

PDCCH Physical downlink control channel

PDSCH Physical downlink shared channel

PMI Precoding matrix indicator

PRB Physical resource block

PRACH Physical random access channel

PSBCH Physical sidelink broadcast channel

PSCCH Physical sidelink control channel

PSFCH Physical sidelink feedback channel

PSSCH Physical sidelink shared channel

PTRS Phase-tracking reference signal

PUCCH Physical uplink control channel

PUSCH Physical uplink shared channel

RACH Random access channel

RI Rank indicator

RSRP Reference signal received power

SAI Sidelink assignment index

SCI Sidelink control information

SFCI Sidelink feedback control information

SFN System frame number

SL Sidelink

SL-BCH Sidelink broadcast channel

SL-SCH Sidelink shared channel

SR Scheduling request

SRS Sounding reference signal

SS Synchronisation signal

SUL Supplementary uplink

TPC Transmit power control

TrCH Transport channel

UCI Uplink control information

UE User equipment

UL Uplink

UL-SCH Uplink shared channel

VRB Virtual resource block

ZP CSI-RS Zero power CSI-RS

<Unchanged parts omitted>

##### 7.3.1.4.1 Format 3\_0

DCI format 3\_0 is used for scheduling of NR PSCCH and NR PSSCH in one cell.

The following information is transmitted by means of the DCI format 3\_0 with CRC scrambled by SL-RNTI or SL-CS-RNTI:

- Time gap – [x] bits determined by higher layer parameter *sl-DCI-ToSL-Trans,* as defined in clause x.x.x of [6, TS 38.214]

- HARQ process ID – [x] bitsas defined in clause 16.4 of [5, TS 38.213]

- New data indicator – 1 bitas defined in clause 16.4 of [5, TS 38.213]

- Lowest index of the subchannel allocation to the initial transmission –$\left⌈log\_{2}(N\_{ subChannel}^{ SL})\right⌉$ bits as defined in clause x.x.x of [6, TS 38.214]

- SCI format 0-1 fields according to clause 8.3.1.1:

- Frequency resource assignment.

- Time resource assignment.

- PSFCH-to-HARQ feedback timing indicator – 3 bitsas defined in clause x.x.x of [6, TS 38.214].

- PUCCH resource indicator – 3 bitsas defined in clause x.x.x of [6, TS 38.214].

- Configuration index – 0 bit if the UE is not configured to monitor DCI format 3\_0 with CRC scrambled by SL-CS-RNTI; otherwise [x] bitsas defined in clause x.x.x of [6, TS 38.214]. If the UE is configured to monitor DCI format 3\_0 with CRC scrambled by SL-CS-RNTI, this field is reserved for DCI format 3\_0 with CRC scrambled by SL-RNTI.

- Counter sidelink assignment index – [1 or 2] bits

- 2 bits as defined in Clause 15.x of [5, TS 38.213] if the UE is configured with *pdsch-HARQ-ACK-Codebook = dynamic*

- [1 or 2] bits as defined in Clause 15.x of [5, TS 38.213] if the UE is configured with *pdsch-HARQ-ACK-Codebook = semi-static*

If the UE is configured to monitor DCI format 3\_1 and the number of information bits in DCI format 3\_0 is less than the payload of DCI format 3\_1, zeros shall be appended to DCI format 3\_0 until the payload size equals that of DCI format 3\_1.

<Unchanged parts omitted>