# **[102-e-NR- 5G\_V2X\_NRSL-PHYprocedure-02] Email discussion/approval regarding the assumptions for the CSI reference resource for sidelink CSI**

[102-e-NR- 5G\_V2X\_NRSL-PHYprocedure-02] Email discussion/approval regarding the assumptions for the CSI reference resource for sidelink CSI by 8/21, followed by potential TPs by 8/26 – Hanbyul (LGE)

Q1: Do you agree following assumption?

* + For the sidelink CSI reference resource, UE assumes
    - First SL symbol is occupied by duplicated symbol of 2nd SL symbol within a SL slot
    - Numerology (CP length and SCS) of configured SL BWP is used

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| Company | Answer | Comment |
| NTT DOCOMO |  | For the first sub-bullet, the situation is always true, so the ‘assumption’ would not be necessary.  Second sub-bullet is OK. |
| Sharp | Agree |  |
| Ericsson | Agree |  |
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Q2: What is the assumption on RV for the sidelink CSI reference resource?

* + Option 1: RV0
  + Option 2: RV indicated by SCI triggering the CSI report
  + Option 3: Others (please specify)

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| Company | Preferred option | Comment |
| NTT DOCOMO | Option 1 | Reuse NR-Uu.  For CSI report, self-decodable RV is feasible. RV0 should be OK. |
| Sharp | Option 1 | Reuse NR Uu. |
| Ericsson | Option 1 |  |
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Q3: What is the assumption on PSCCH overhead for the sidelink CSI reference resource?

* + Option 1: PSCCH occupies 2 OFDM symbols
  + Option 2: PSCCH occupies timeResourcePSCCH OFDM symbols and frequencyResourcePSCCH PRBs in the resource pool
  + Option 3: Others (please specify)

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| Company | Preferred option | Comment |
| NTT DOCOMO | Option 1 | Reuse Uu.  UE receiving the CSI report would correct the information for actual transmission. As discussed before/after this question, there are some/many assumptions. Regardless of outcome of this question, the UE needs to do that. So it seems that option 2 has no benefit. |
| Sharp | Option 1 | Reuse NR Uu. |
| Ericsson | Option 1 |  |
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Q4: What is the assumption on the number of PSSCH and DM-RS symbols for the sidelink CSI reference resource?

* + Option 1: 10
  + Option 2: sl-LengthSymbols ‒ 2
  + Option 3: the number of PSSCH and DM-RS symbols in a slot where SCI triggering the CSI report is transmitted
  + Option 4: sl-LengthSymbols ‒ 5 if periodPSFCHresource = 1. Otherwise, sl-LengthSymbols ‒ 2.
  + Option 5: Others (please specify)

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| Company | Preferred option | Comment |
| NTT DOCOMO | Option 1 | Reuse NR-Uu, where assumption of the number of PDSCH and DM-RS is fixed as 12.  Similar to our comment on Q3. |
| Sharp | Option 1 | Reuse NR Uu, where the assumption is (14-2-2)=10 |
| Ericsson | Option 1 |  |
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Q5: What is the assumption on sidelink CSI-RS overhead for the sidelink CSI reference resource?

* + Option 1: No CSI-RS mapping REs
  + Option 2: the number of CSI-RS REs in a PSSCH resource scheduled by SCI triggering the CSI report
  + Option 3: Others (please specify)

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| Company | Preferred option | Comment |
| NTT DOCOMO | Option 1 | Reuse NR-Uu. |
| Sharp | Option 1 | Reuse NR Uu |
| Ericsson | Option 1 |  |
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Q6: What is the assumption on 2nd SCI overhead for the sidelink CSI reference resource?

* + Option 1: No 2nd SCI mapping REs
  + Option 2: Lowest overhead per (pre)configuration
  + Option 3: : the number of REs for 2nd SCI triggering the CSI report
  + Option 4: Others (please specify)

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| Company | Preferred option | Comment |
| NTT DOCOMO | Option 1 | Reuse NR-Uu.  Similar to our comment on Q3. |
| Sharp | Option 1 | Reuse NR Uu |
| Ericsson | Option 1 |  |
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Q7: What is the assumption on 2nd SCI overhead for the PSSCH DMRS ~~the sidelink CSI reference resource~~?

* + Option 1: Smallest number of PSSCH DMRS symbols per (pre)confiugraiton
  + Option 2: the number of PSSCH DMRS symbols indicated by SCI associated with the triggered CSI report
  + Option 3: Others (please specify)

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| Company | Preferred option | Comment |
| NTT DOCOMO | Option 1 | First of all, the question would be about DM-RS, not 2nd-stage SCI overhead.  Regarding preferred option, reuse NR-Uu, where assumption of the number of DM-RS is based on the configurations. |
| Sharp | Option 3 | If the question refers to PSSCH DMRS overhead, then we propose to reuse NR Uu without containing DMRS, i.e. no overhead is assumed. |
| Ericsson | Option 1 |  |
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Q8: Do you think there are other aspects RAN1 needs to consider in defining assumptions for the sidelink CSI reference resource?

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| Company | Answer | Comment |
| Sharp |  | Assume the SL CSI reference resource does not contain SL PT-RS. |
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