

Title: Using 5G sidelink in industrial factory applications – use cases and requirements

Source: 5G Alliance for Connected Industries and Automation (5G-ACIA)

To: 3GPP TSG SA, 3GPP TSG RAN

CC: 3GPP SA1, 3GPP SA2

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1. Overall Description

5G-ACIA has produced a white paper titled ‘Using 5G sidelink in industrial factory applications’ [1] identifying use cases for connected industries and automation using sidelink communication/positioning. The usage of sidelink as described in the white paper is relevant for UEs supporting factory applications provided by a non-public network (NPN), either a standalone NPN or a public-network integrated NPN.

The industrial use cases described in the white paper include:

- Motion control
- Controller-to-Controller communication
- Cooperative carrying robots
- Relative positioning in smart factories

The resulting requirements on usage of sidelink for industrial factory applications are described in section 7 of the white paper [1] .

2. Actions to 3GPP TSG SA and 3GPP TSG RAN:

5G-ACIA would like 3GPP to take into consideration the requirements described in the aforementioned white paper ‘Using 5G sidelink in industrial factory applications’ for stage 2 and stage 3 work and in Release 19 content definition.

3. Date of Next 5G-ACIA Plenary Meetings

- 20-21 September 2023, Plenary Meeting #027, Stockholm
- 5-6 December 2023, Plenary Meeting #028, Taipei
- March 2024, Plenary Meeting #029, virtual

4. References

- [1] 5G-ACIA Whitepaper “Using 5G sidelink in industrial factory applications”, September 2023, attached to this LS



5G-ACIA_White_Paper_Using_5G_Sidelink