



3GPP TSG RAN Meeting #102

Edinburgh, Scotland, December 11 - 15, 2023

Agenda Item: 9.1.1.9

Source: Apple

RP-233166

Views on Sidelink Evolution in R19

Rel-19 NR Sidelink | Sidelink Operation in FR2

■ **Background**

- Enhanced sidelink operation in FR2 licensed spectrum was studied in Rel-18 sidelink
 - Study is limited to the support of sidelink beam management (including initial beam pairing, beam maintenance and beam failure recovery) for sidelink unicast only

■ **Justification**

- NR sidelink operation in FR2 licensed spectrum gains strong interest
 - Sidelink operations can achieve higher data rate and lower latency in FR2
 - Beam based transmissions in FR2 is essential for coverage

■ **Objectives**

- Specify enhanced sidelink operations on FR2 licensed spectrum with the support of sidelink beam management for sidelink unicast, based on study outcomes of Rel-18 sidelink, including
 - Initial beam pairing, beam maintenance and beam failure recovery
 - Design of reference signal and its corresponding beam reporting
- Study and specify (if needed) further enhanced sidelink operations on FR2 spectrum
 - Resource allocation enhancement in beam based operations, including mode 1 and mode 2 resource allocation, inter-UE coordination, resource allocation for reference signals, etc.
- Note: this may be considered at the first checkpoint (Sept. 2024)



