Claims

[Claim 1]

A user equipment (UE), comprising:

higher layer circuitry configured to receive first information to configure a sidelink bandwidth part (BWP) and second information to configure one or more resource pools for sidelink transmission and/or reception, the one or more resource pools are associated with a BWP identity (ID) corresponding to the BWP; and

transmitting circuitry configured to transmit a physical sidelink control channel (PSCCH) and a physical sidelink shared channel (PSSCH), wherein

the first information configures a subcarrier spacing associated with the sidelink BWP; and

the second information configures a demodulation reference signal configuration for the PSCCH and PSSCH for each of the one or more resource pools.

[Claim 2]

A base station (gNB), comprising:

higher layer circuitry configured to transmit first information to configure a sidelink bandwidth part (BWP) and second information to configure one or more resource pools for sidelink communication, the one or more resource pools are associated with a BWP identity (ID) corresponding to the BWP; wherein

the first information configures a subcarrier spacing associated with the sidelink BWP, and

the second information configures a demodulation reference signal configuration for a physical sidelink control channel (PSCCH) and a physical sidelink shared channel (PSSCH) for each of the one or more resource pools.

[Claim 3]

A communication method by a user equipment (UE), comprising:

receiving first information to configure a sidelink bandwidth part (BWP) and second information to configure one or more resource pools for sidelink transmission and/or reception, the one or more resource pools are associated with a BWP identity (ID) corresponding to the BWP; and

transmitting a physical sidelink control channel (PSCCH) and a physical sidelink shared channel (PSSCH), wherein

the first information configures a subcarrier spacing associated with the sidelink BWP, and

the second information configures a demodulation reference signal configuration for a physical sidelink control channel (PSCCH) and a physical sidelink

shared channel (PSSCH) for each of the one or more resource pools.