Claims

1. A wireless communication method for use in a first wireless terminal, the method comprising:

receiving, from a second wireless terminal, a sidelink resource indication used for performing a sidelink transmission in an unlicensed carrier after a slot with an index n, and

performing the sidelink transmission in the unlicensed carrier after the slot with the index n based on the sidelink resource indication,

wherein the sidelink resource is associated with a sidelink grant with a priority value; and

in response to the sidelink grant being associated with the priority value, and in response to the first wireless terminal acquiring a sidelink channel access priority for each logical channel, the method further comprising:

performing a sidelink Logical Channel Prioritization procedure; and

selecting the logical channels of which Channel Access Priority Class, CAPC, value is not larger than the priority value during the sidelink Logical Channel Prioritization procedure.

2. The wireless communication method of claim 1, wherein the sidelink resource indication comprises a channel occupancy time sharing indication received at the slot with the index n and a time offset X, and

wherein the sidelink transmission in the unlicensed carrier is performed no earlier than a slot with an index n+X.

3. The wireless communication method of claim 1, wherein the sidelink resource indication comprises a sidelink offset *l* and a sidelink duration d for the slot n, and

wherein the sidelink transmission in the unlicensed carrier is performed no earlier than a slot with an index $n + l + i, where\ i = 0, 1, \dots, d - 1$.

4. The wireless communication method of claim 1, wherein the sidelink resource is associated with a priority threshold and the sidelink grant, and

wherein a priority value of data in the sidelink transmission is smaller than or equal to the priority threshold for the associated sidelink grant.

5. The wireless communication method of claim 1, wherein the sidelink resource is associated with a destination identifier and the sidelink grant, and
wherein a receiver of the sidelink transmission is associated with the destination identifier for the sidelink grant.

6. The wireless communication method of claim 1, wherein in response to the sidelink grant being associated with a destination identifier, the method further comprising:
performing a sidelink Logical Channel Prioritization procedure; and
selecting the destination identifier associated to the sidelink grant during the sidelink Logical Channel Prioritization procedure.

7. A wireless communication method for use in a second wireless terminal, the method comprising:
transmitting, to a first wireless terminal, a sidelink resource indication used for allowing the first wireless terminal to perform a sidelink transmission in an unlicensed carrier after a slot with an index n,
wherein the sidelink resource is associated with a sidelink grant with a priority value; and
in response to the sidelink grant being associated with the priority value, and in response to the first wireless terminal acquiring a sidelink channel access priority for each logical channel, the method further comprising:
performing a sidelink Logical Channel Prioritization procedure; and
selecting the logical channels of which Channel Access Priority Class, CAPC, value is not larger than the priority value during the sidelink Logical Channel Prioritization procedure.

8. The wireless communication method of claim 7, wherein the sidelink resource indication comprises a channel occupancy time sharing indication received at the slot with the index n and a time offset X, and
wherein the sidelink transmission in the unlicensed carrier is performed no earlier than a slot with an index n+X.

9. The wireless communication method of claim 7, wherein the sidelink resource indication

comprises a sidelink offset l and a sidelink duration d for the slot n, and

wherein the sidelink transmission in the unlicensed carrier is performed no earlier than a slot with an index $n + l + i, where\ i = 0, 1, \ldots, d - 1$.

10. The wireless communication method of claim 7, wherein the sidelink resource is associated with a priority threshold and the sidelink grant,

wherein a priority value of data in the sidelink transmission is smaller than or equal to the priority threshold for the associated sidelink grant.

11. The wireless communication method of claim 7, wherein the sidelink resource is associated with a destination identifier and the sidelink grant,

wherein a receiver of the sidelink transmission is associated with the destination identifier for the sidelink grant.

12. A first wireless terminal, comprising:

a communication unit, configured to receive, from a second wireless terminal, a sidelink resource indication used for performing a sidelink transmission in an unlicensed carrier after a slot with an index n, and

a processor, configured to perform the sidelink transmission in the unlicensed carrier after the slot with the index n based on the sidelink resource indication,

wherein the sidelink resource is associated with a sidelink grant with a priority value; and

in response to the sidelink grant being associated with the priority value, and in response to the first wireless terminal acquiring a sidelink channel access priority for each logical channel, the method further comprising:

performing a sidelink Logical Channel Prioritization procedure; and

selecting the logical channels of which Channel Access Priority Class, CAPC, value is not larger than the priority value during the sidelink Logical Channel Prioritization procedure.

13. The first wireless terminal of claim 12, wherein the sidelink resource indication comprises a channel occupancy time sharing indication received at the slot with the index n and a time offset X, and

wherein the sidelink transmission in the unlicensed carrier is performed no earlier than a

slot with an index n+X.

14. The first wireless terminal of claim 12, wherein the sidelink resource indication comprises a sidelink offset *l* and a sidelink duration d for the slot n, and
wherein the sidelink transmission in the unlicensed carrier is performed no earlier than a slot with an index $n + l + i, where\ i = 0, 1, \dots, d - 1$.

15. The first wireless terminal of claim 12, wherein the sidelink resource is associated with a priority threshold and the sidelink grant, and
wherein a priority value of data in the sidelink transmission is smaller than or equal to the priority threshold for the associated sidelink grant.

16. The first wireless terminal of claim 12, wherein the sidelink resource is associated with a destination identifier and the sidelink grant, and
wherein a receiver of the sidelink transmission is associated with the destination identifier for the sidelink grant.

17. The first wireless terminal of claim 12, wherein in response to the sidelink grant being associated with a destination identifier, the method further comprising:
performing a sidelink Logical Channel Prioritization procedure; and
selecting the destination identifier associated to the sidelink grant during the sidelink Logical Channel Prioritization procedure.