

CLAIMS

What is claimed is:

1. A sidelink information transmission method, applied to a first terminal side, characterized in that the sidelink information transmission method comprises:

receiving sidelink control information (SCI) at a physical layer of the first terminal; and
determining, based on a sidelink transmission identifier indicated by the SCI, whether to receive or demodulate a physical sidelink shared channel (PSSCH) or not,

wherein the sidelink transmission identifier is determined based on at least some bits of a layer 2 identity;

the sidelink transmission identifier comprises at least one of a broadcast identifier, a multicast identifier, and a unicast identifier;

wherein the step of determining, based on a sidelink transmission identifier indicated by the SCI, whether to receive or demodulate a physical sidelink shared channel PSSCH or not comprises one of the following:

receiving or demodulating the PSSCH if the SCI indicates the broadcast identifier;

receiving or demodulating the PSSCH if the multicast identifier indicated by the SCI is a target multicast identifier; and

receiving or demodulating the PSSCH if the unicast identifier indicated by the SCI is a target unicast identifier;

wherein after the step of determining, based on a sidelink transmission identifier indicated by the SCI, whether to receive or demodulate a physical sidelink shared channel PSSCH or not, the method further comprises:

if it is determined to receive or demodulate the PSSCH, feeding back response information based on a PSSCH processing result, wherein the response information is encoded and fed back at the physical layer of the first terminal.

2. The sidelink information transmission method according to claim 1, wherein the sidelink transmission identifier further comprises at least one of a sender identifier, and a receiver identifier.

3. The sidelink information transmission method according to claim 2, wherein the step of determining, based on a sidelink transmission identifier indicated by the SCI, whether to receive or demodulate a physical sidelink shared channel PSSCH or not further comprises one of the following:

receiving or demodulating the PSSCH if the sender identifier indicated by the SCI is a target sender identifier; and

receiving or demodulating the PSSCH if the receiver identifier indicated by the SCI is a target

receiver identifier.

4. The sidelink information transmission method according to claim 1, wherein the sidelink transmission identifier is carried in an indicator field of the SCI, or the sidelink transmission identifier is a cyclic redundancy check (CRC) for scrambling the SCI.

5. The sidelink information transmission method according to claim 4, wherein the indicator field comprises one of the following:

- a first indicator field comprising at least some bits of the sidelink transmission identifier; and
- a second indicator field with a preset quantity of bits, constructed according to a preset rule.

6. The sidelink information transmission method according to claim 4, wherein the indicator field is further used to indicate at least one of response information, a hybrid automatic repeat request (HARQ) process number, resource allocation, and a modulation and coding scheme (MCS).

7. The sidelink information transmission method according to claim 1, wherein after the step of determining, based on a sidelink transmission identifier indicated by the SCI, whether to receive or demodulate a physical sidelink shared channel PSSCH or not, the method further comprises:

- if it is determined not to receive or demodulate the PSSCH, performing resource sensing and/or resource reservation based on a resource scheduled or reserved by the SCI.

8. A terminal, wherein the terminal is a first terminal and characterized by comprising:

- a receiving module, configured to receive sidelink control information (SCI) at a physical layer of the first terminal; and

- a first processing module, configured to determine, based on a sidelink transmission identifier indicated by the SCI, whether to receive or demodulate a physical sidelink shared channel (PSSCH) or not,

- wherein the sidelink transmission identifier is determined based on at least some bits of a layer 2 identity;

- the sidelink transmission identifier comprises at least one of a broadcast identifier, a multicast identifier, and a unicast identifier;

- wherein the first processing module comprises one of the following:

- a third processing sub-module, configured to receive or demodulate the PSSCH if the SCI indicates the broadcast identifier;

- a fourth processing sub-module, configured to receive or demodulate the PSSCH if the multicast identifier indicated by the SCI is a target multicast identifier; and

- a fifth processing sub-module, configured to receive or demodulate the PSSCH if the unicast identifier indicated by the SCI is a target unicast identifier;

- the terminal further comprises:

a third processing module, configured to: if it is determined to receive or demodulate the PSSCH, feed back response information based on a PSSCH processing result, wherein the response information is encoded and fed back at the physical layer of the first terminal.

9. The terminal according to claim 8, wherein the sidelink transmission identifier further comprises at least one of a sender identifier, and a receiver identifier.

10. The terminal according to claim 9, wherein the first processing module further comprises one of the following:

a first processing sub-module, configured to receive or demodulate the PSSCH if the sender identifier indicated by the SCI is a target sender identifier; and

a second processing sub-module, configured to receive or demodulate the PSSCH if the receiver identifier indicated by the SCI is a target receiver identifier.

11. The terminal according to claim 8, wherein the sidelink transmission identifier is carried in an indicator field of the SCI, or the sidelink transmission identifier is a cyclic redundancy check (CRC) for scrambling the SCI.

12. The terminal according to claim 11, wherein the indicator field comprises one of the following:

a first indicator field comprising at least some bits of the sidelink transmission identifier; and

a second indicator field with a preset quantity of bits, constructed according to a preset rule.

13. The terminal according to claim 11, wherein the indicator field is further used to indicate at least one of response information, a hybrid automatic repeat request (HARQ) process number, resource allocation, and a modulation and coding scheme (MCS).

14. The terminal according to claim 8, further comprising:

a second processing module, configured to: if it is determined not to receive or demodulate the PSSCH, perform resource sensing and/or resource reservation based on a resource scheduled or reserved by the SCI.

15. A terminal, wherein the terminal is a second terminal and characterized by comprising:

a sending module, configured to send sidelink control information (SCI) at a physical layer of the second terminal, wherein the SCI is used to indicate a sidelink transmission identifier,

wherein the sidelink transmission identifier is determined based on at least some bits of a layer 2 identity;

the sidelink transmission identifier comprises at least one of a broadcast identifier, a multicast identifier, and a unicast identifier;

the terminal further comprises:

a receiving module, configured to receive response information, wherein the response

information is fed back at a physical layer of the first terminal based on a PSSCH processing result.

16. The terminal according to claim 15, wherein the sidelink transmission identifier comprises at least one of a sender identifier, and a receiver identifier.

17. The terminal according to claim 15, wherein the sidelink transmission identifier is carried in an indicator field of the SCI, or the sidelink transmission identifier is a cyclic redundancy check (CRC) for scrambling the SCI.

18. The terminal according to claim 17, wherein the indicator field comprises one of the following:

a first indicator field comprising at least some bits of the sidelink transmission identifier; and
a second indicator field with a preset quantity of bits, constructed according to a preset rule.

19. The terminal according to claim 17, wherein the indicator field is further used to indicate at least one of response information, a hybrid automatic repeat request (HARQ) process number, resource allocation, and a modulation and coding scheme (MCS).

20. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when a processor executes the computer program, the steps of the sidelink information transmission method according to any one of claims 1 to 7 are implemented.