CLAIMS

1. A method for sending control information, applied to a first terminal and comprising:

receiving Sidelink Feedback Control Information (SFCI) from at least one second terminal; and

sending uplink control information on a first uplink resource according to the received SFCI.

~~2. The method of claim 1~~, wherein the uplink control information comprises at least one of: the received SFCI; first information generated according to the received SFCI and indicating whether the second terminal correctly receives sidelink data sent by the first terminal; a Buffer Status Report (BSR) carrying the received SFCI; or a Scheduling Request (SR);

wherein the method further comprises:

~~3. The method of claim 2, further comprising:~~

determining the first uplink resource according to at least one of the following information:

slot information indicating a number of spacing slots between a slot used for the uplink control information and a target slot, the target slot being a slot used by the first terminal to receive physical-layer

downlink control signaling for scheduling data transmission from the first terminal to the second terminal, or a slot used by the first terminal to send Sidelink Control Information (SCI), or a slot used by the first terminal to send the sidelink data, or a slot used by the first terminal to receive the SFCI from the second terminal;

symbol information indicating a symbol occupied by the uplink control information in an occupied slot;

resource block information indicating a Physical Resource Block (PRB) occupied by the uplink control information in the occupied slot; or

format information indicating a Physical Uplink Control Channel (PUCCH) format available for the uplink control information~~; or~~

~~PUCCH resource information indicating an Identity (ID) of a PUCCH resource occupied by the uplink control information~~.

4~~2~~. The method of claim 3~~1~~, wherein determining the first uplink resource according to the at least one of the following information comprises:

determining an available value set of at least one piece of information according to a protocol or a configuration of high-layer signaling sent by a network-side device;

receiving the physical-layer downlink control signaling from the network-side device, the physical-layer downlink control signaling indicating an available value in the available value set configured by the high-layer signaling or predetermined in the protocol; and

determining the first uplink resource according to the available value indicated

by the physical-layer downlink control signaling.

~~5~~3. The method of claim ~~3~~1, wherein determining the first uplink resource according to the at least one of the following information comprises:

determining an available value of at least one piece of information according to a target resource, and determining the first uplink resource according to the determined available value,

wherein the target resource comprises one of:

a resource used by the first terminal to receive the physical-layer downlink control signaling for scheduling data transmission from the first terminal to the second terminal;

a resource used by the first terminal to send the SCI;

a resource used by the first terminal to send the sidelink data; or

a resource used by the first terminal to receive the SFCI from the second terminal.

~~6~~4. The method of claim ~~3~~1, wherein determining the first uplink resource according to the at least one of the following information comprises:

determining an available value set of at least one piece of information according to a protocol or a configuration of high-layer signaling sent by a network-side device; and

determining an available value in the available value set configured by the high-layer signaling or predetermined in the protocol according to a target resource,

and determining the first uplink resource according to the determined available value,

wherein the target resource comprises one of:

a resource used by the first terminal to receive the physical-layer downlink control signaling for scheduling data transmission from the first terminal to the second terminal;

a resource used by the first terminal to send the SCI;

a resource used by the first terminal to send the sidelink data; or

a resource used by the first terminal to receive the SFCI from the second terminal.

~~7~~5. The method of claim ~~2~~1, wherein when at least two pieces of SFCI are received and the uplink control information comprises the received SFCI or the first information,

the uplink control information comprises the received at least two pieces of SFCI, ID information of a respective second terminal corresponding to each piece of SFCI, and a respective Hybrid Automatic Repeat reQuest (HARQ) process ID corresponding to each piece of SFCI;

or,

the uplink control information comprises generated at least two pieces of first information, ID information of a respective second terminal corresponding to each piece of first information, and a respective HARQ process ID corresponding to each piece of first information;

or,

the uplink control information comprises the received at least two pieces of SFCI, positions of the SFCI corresponding to different HARQ processes of different second terminals in the uplink control information being different;

or,

the uplink control information comprises the generated at least two pieces of first information, positions of the first information corresponding to different HARQ processes of different second terminals in the uplink control information being different.

~~86~~. The method of claim ~~75~~, wherein at least one of the following applies:

the positions of the SFCI corresponding to different HARQ processes of different second terminals in the uplink control information are determined and reported by the first terminal to a network-side device through high-layer or physical-layer signaling, or determined and configured by the network-side device for the first terminal through high-layer or physical-layer signaling, or predetermined in a protocol; or

the positions of the first information corresponding to different HARQ processes of different second terminals in the uplink control information are determined and reported by the first terminal to the network-side device through the high-layer or physical-layer signaling, or determined and configured by the network-side device for the first terminal through the high-layer or physical-layer signaling, or predetermined in the protocol.

~~97~~. The method of claim ~~21~~, wherein when the uplink control information is the SR, at least one of the following applies:

different SR configuration information or different SR sequences are used for indicating whether a sidelink resource requested by the first terminal is an initial transmission resource or a retransmission resource; or

different SR configuration information or different SR sequences are used for indicating ID information of different second terminals that receive data on the requested sidelink resource and/or different HARQ process IDs.

~~10~~8. A method for receiving control information, applied to a network-side device and comprising:

receiving uplink control information sent by a first terminal on a first uplink resource, the uplink control information comprising at least one of: Sidelink Feedback Control Information (SFCI) received by the first terminal from at least one second terminal; first information generated by the first terminal according to the SFCI received from the at least one second terminal and indicating whether the second terminal correctly receives sidelink data sent by the first terminal; a Buffer Status Report (BSR) carrying the SFCI received by the first terminal from the at least one second terminal; or a Scheduling Request (SR);

wherein the method further comprises:

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~~11. The method of claim 10, further comprising:~~

sending high-layer signaling to the first terminal, the high-layer signaling being used for configuring an available value set of at least one piece of information, wherein the information comprises at least one of:

slot information indicating a number of spacing slots between a slot used for uplink transmission of the uplink control information and a target slot, the target slot being a slot used by the first terminal to receive physical-layer downlink control signaling for scheduling data transmission from the first terminal to the second terminal, or a slot used by the first terminal to send Sidelink Control Information (SCI), or a slot used by the first terminal to send the sidelink data, or a slot used by the first terminal to receive the SFCI from the second terminal;

symbol information indicating a symbol occupied by the uplink control information in an occupied slot;

resource block information indicating a Physical Resource Block (PRB) occupied by the uplink control information in the occupied slot; or

format information indicating a Physical Uplink Control Channel (PUCCH) format available for the uplink control information~~; or~~

~~PUCCH resource information indicating an Identity (ID) of a PUCCH resource occupied by the uplink control information~~.

~~12~~9. The method of claim ~~11~~8, further comprising:

sending the physical-layer downlink control signaling to the first terminal, the physical-layer downlink control signaling indicating an available value in the available value set configured by the high-layer signaling.

~~13~~10. The method of claim ~~10~~8, wherein when the first terminal receives at least two pieces of SFCI and the uplink control information comprises the received SFCI or the

first information,

the uplink control information comprises the at least two pieces of SFCI, ID information of a respective second terminal corresponding to each piece of SFCI, and a respective Hybrid Automatic Repeat reQuest (HARQ) process ID corresponding to each piece of SFCI;

or,

the uplink control information comprises at least two pieces of first information, ID information of a respective second terminal corresponding to each piece of first information, and a respective HARQ process ID corresponding to each piece of first information;

or,

the uplink control information comprises the at least two pieces of SFCI, positions of the SFCI corresponding to different HARQ processes of different second terminals in the uplink control information being different;

or,

the uplink control information comprises the at least two pieces of first information, positions of the first information corresponding to different HARQ processes of different second terminals in the uplink control information being different.

~~14~~11. The method of claim ~~13~~10, wherein at least one of the following applies:

the positions of the SFCI corresponding to different HARQ processes of different second terminals in the uplink control information are determined and reported by the first terminal to the network-side device through high-layer or

physical-layer signaling, or determined and configured by the network-side device for the first terminal through high-layer or physical-layer signaling, or predetermined in a protocol; or

the positions of the first information corresponding to different HARQ processes of different second terminals in the uplink control information are determined and reported by the first terminal to the network-side device through the high-layer or physical-layer signaling, or determined and configured by the network-side device for the first terminal through the high-layer or physical-layer signaling, or predetermined in the protocol.

~~15~~12. The method of claim ~~10~~8, wherein when the uplink control information is the SR, at least one of the following applies:

different SR configuration information or different SR sequences are used for indicating whether a sidelink resource requested by the first terminal is an initial transmission resource or a retransmission resource; or

different SR configuration information or different SR sequences are used for indicating ID information of different second terminals that receive data on the requested sidelink resource and/or different HARQ process IDs.

~~16~~13. A terminal, the terminal being a first terminal and comprising a processor and a transceiver, wherein the processor is configured to control the transceiver to:

receive Sidelink Feedback Control Information (SFCI) from at least one second terminal; and

send uplink control information on a first uplink resource according to the

received SFCI.

17. The terminal of claim 16, wherein the uplink control information comprises at least one of: the received SFCI; first information generated according to the received SFCI and indicating whether the second terminal correctly receives sidelink data sent by the first terminal; a Buffer Status Report (BSR) carrying the received SFCI; or a Scheduling Request (SR);.

18. The terminal of claim 17, wherein the processor is further configured to:

determine the first uplink resource according to at least one of the following information:

slot information indicating a number of spacing slots between a slot used for the uplink control information and a target slot, the target slot being a slot used by the first terminal to receive physical-layer downlink control signaling for scheduling data transmission from the first terminal to the second terminal, or a slot used by the first terminal to send Sidelink Control Information (SCI), or a slot used by the first terminal to send the sidelink data, or a slot used by the first terminal to receive the SFCI from the second terminal;

symbol information indicating a symbol occupied by the uplink control information in an occupied slot;

resource block information indicating a Physical Resource Block (PRB) occupied by the uplink control information in the occupied slot; or

format information indicating a Physical Uplink Control Channel (PUCCH) format available for the uplink control information~~; or~~

~~PUCCH resource information indicating an Identity (ID) of a PUCCH resource occupied by the uplink control information~~.

~~19~~14. The terminal of claim ~~18~~13, wherein the transceiver is further configured to:

determine an available value set of at least one piece of information according to a protocol or a configuration of high-layer signaling sent by a network-side device, and

receive the physical-layer downlink control signaling from the network-side device, the physical-layer downlink control signaling indicating an available value in the available value set configured by the high-layer signaling or predetermined in the protocol; and

the processor is further configured to:

determine the first uplink resource according to the available value indicated by the physical-layer downlink control signaling.

~~20~~15. A network-side device, comprising a processor and a transceiver, wherein the processor is configured to control the transceiver to:

receive uplink control information sent by a first terminal on a first uplink resource, the uplink control information comprising at least one of: Sidelink Feedback Control Information (SFCI) received by the first terminal from at least one second terminal; first information generated by the first terminal according to the SFCI received from the at least one second terminal and indicating whether the second

terminal correctly receives sidelink data sent by the first terminal; a Buffer Status Report (BSR) carrying the SFCI received by the first terminal from the at least one second terminal; or a Scheduling Request (SR);

wherein the transceiver is further configured to:

send high-layer signaling to the first terminal, the high-layer signaling being used for configuring an available value set of at least one piece of information, wherein the information comprises at least one of:

slot information indicating a number of gap slots between a slot used for uplink transmission of the uplink control information and a target slot, the target slot being a slot used by the first terminal to receive physical-layer downlink control signaling for scheduling data transmission from the first terminal to the second terminal, or a slot used by the first terminal to send Sidelink Control Information (SCI), or a slot used by the first terminal to send the sidelink data, or a slot used by the first terminal to receive the SFCI from the second terminal;

symbol information indicating a symbol occupied by the uplink control information in an occupied slot;

resource block information indicating a Physical Resource Block (PRB) occupied by the uplink control information in the occupied slot; or

format information indicating a Physical Uplink Control Channel (PUCCH) format available for the uplink control information.