CLAIMS

What is claimed is:

1. An information sending method, applied to a first device and comprising:

sending first information to at least one second device, wherein the first information is used to assist the second device in selecting or reserving a resource for data transmission;

wherein the first information is carried in target information, the target information comprises sidelink control information, and the sidelink control information comprises second-stage sidelink control information;

wherein the first information comprises at least one of the following information:

identification information of a first-information transmit end;

identification information of a first-information receive end; or

type indication information of the first information.

2. The method according to claim 1, wherein the first information further comprises at least one of the following information:

time domain resource indication information;

frequency domain resource indication information;

time domain resource position offset information;

frequency domain resource position offset information;

function indication information of the first information; and

applicable range indication information of the first information.

3. The method according to claim 1, wherein the target information further comprises at least one of the following:

downlink control information;

radio resource control information;

direct communication link radio resource control information; and

sidelink feedback control information; wherein

the sidelink control information further comprises: first-stage sidelink control information.

4. The method according to claim 2, wherein the function indication information of the first information is used to indicate at least one of the following:

indicating that the second device preferentially selects or preferentially reserves a

resource indicated by the first information;

indicating that the second device non-preferentially selects or non-preferentially reserves a resource indicated by the first information;

indicating that the second device is allowed to select or reserve only a resource indicated by the first information; and

indicating that the second device is not allowed to select or reserve a resource indicated by the first information.

5. The method according to claim 2, wherein the applicable range indication information of the first information is used to indicate at least one of the following:

indicating that the first information is applicable to a unicast transmission mode;

indicating that the first information is applicable to a groupcast transmission mode; and

indicating that the first information is applicable to a broadcast transmission mode.

6. The method according to claim 2, wherein the type indication information of the first information is used to indicate at least one of the following:

indicating that the first information is non-assistance information; and

indicating that the first information is assistance information.

7. The method according to claim 2 or 3, in a case that the first device adds the first information to the second-stage sidelink control information, or, to first-stage sidelink control information and the second-stage sidelink control information:

the type indication information is indicated by a first indication field in the second-stage sidelink control information, or, in the first-stage sidelink control information and the second-stage sidelink control information;

or,

the type indication information is indicated through joint coding with a second indication field in the second-stage sidelink control information, or, in the first-stage sidelink control information and the second-stage sidelink control information;

or,

the type indication information is indicated by a codepoint in a third indication field of the second-stage sidelink control information, or, of the first-stage sidelink control information and the second-stage sidelink control information.

8. The method according to claim 3, wherein in a case that the target information is the second-stage sidelink control information, or the second-stage sidelink control

information and the first-stage sidelink control information, and the downlink control information, the method further comprises:

indicating, by using a format of the target information, whether the first information is assistance information;

or,

indicating, by using a scrambling radio network temporary identifier RNTI of the target information, whether the first information is assistance information.

9. The method according to claim 1, further comprising:

indicating, by using a transmission resource of the first information, whether the first information is assistance information;

wherein if the first information is assistance information, the transmission resource of the first information comprises at least one of the following:

a physical sidelink feedback channel;

a physical sidelink data channel;

a resource in a dedicated resource pool;

a resource indicated in a trigger message for triggering transmission of assistance information;

a resource on a specific sub-band in a resource pool; and

a resource on a specific symbol or specific subframe in a resource pool.

10. The method according to claim 2, wherein in a case that the first device adds the time domain resource indication information of the first information to the second-stage sidelink control information, or to first-stage sidelink control information and the second-stage sidelink control information:

the time domain resource indication information is indicated by a fifth indication field in the second-stage sidelink control information, or in the first-stage sidelink control information and the second-stage sidelink control information, wherein each codepoint of the fifth indication field corresponds to at least one piece of time domain resource indication information, wherein the time domain resource indication information comprises at least one of a time domain resource start position, a time domain resource end position, and a time domain resource length; wherein

the fifth indication field is an independent indication field, or the fifth indication field is a jointly coded indication field;

or,

at least one piece of time domain resource indication information is indicated by

a bitmap in the second-stage sidelink control information, or in the first-stage sidelink control information and the second-stage sidelink control information, wherein the time domain resource indication information comprises at least one of a time domain resource start position, a time domain resource end position, and a time domain resource length;

or,

wherein in a case that the first device has time domain resource indication information of the first information carried in the second-stage sidelink control information, or in first-stage sidelink control information and the second-stage sidelink control information:

the time domain resource indication information is indicated by a sixth indication field in the second-stage sidelink control information, or in the first-stage sidelink control information and the second-stage sidelink control information, wherein each codepoint of the sixth indication field corresponds to one time domain resource length; wherein

the sixth indication field is an independent indication field, or the sixth indication field is a jointly coded indication field;

or,

wherein in a case that the first device adds the frequency domain resource indication information of the first information to the second-stage sidelink control information, or to first-stage sidelink control information and the second-stage sidelink control information:

the frequency domain resource indication information is indicated by a seventh indication field in the second-stage sidelink control information, or in the first-stage sidelink control information and the second-stage sidelink control information, wherein each codepoint of the seventh indication field corresponds to position information of at least one frequency domain resource, and the position information of the frequency domain resource comprises at least one of a frequency domain resource start position, a frequency domain resource end position, and a frequency domain resource length; wherein

the seventh indication field is an independent indication field, or the seventh indication field is a jointly coded indication field;

or,

wherein in a case that the first device adds the time domain resource position

offset information of the first information to the second-stage sidelink control information, or to first-stage sidelink control information and the second-stage sidelink control information:

the time domain resource position offset information is indicated by an eighth indication field in the second-stage sidelink control information, or in the first-stage sidelink control information and the second-stage sidelink control information, wherein each codepoint of the eighth indication field corresponds to one time domain offset length, and the eighth indication field is an independent indication field, or the eighth indication field is a jointly coded indication field;

or,

wherein in a case that the first device adds the frequency domain resource position offset information of the first information to the second-stage sidelink control information, or to first-stage sidelink control information and the second-stage sidelink control information:

the frequency domain resource position offset information is indicated by a ninth indication field in the second-stage sidelink control information, or in the first-stage sidelink control information and the second-stage sidelink control information, wherein each codepoint of the ninth indication field corresponds to one frequency domain offset length, and the ninth indication field is an independent indication field, or the ninth indication field is a jointly coded indication field;

or,

wherein in a case that the first device adds the function indication information of the first information in the first information to the second-stage sidelink control information, or to first-stage sidelink control information and the second-stage sidelink control information:

the function indication information is indicated by a tenth indication field in the second-stage sidelink control information, or in the first-stage sidelink control information and the second-stage sidelink control information, wherein each codepoint of the tenth indication field corresponds to one function of the first information, and the tenth indication field is an independent indication field, or the tenth indication field is a jointly coded indication field;

or,

wherein in a case that the first device adds the applicable range indication information of the first information in the first information to the second-stage

sidelink control information, or to first-stage sidelink control information and the second-stage sidelink control information:

the applicable range indication information is indicated by an eleventh indication field in the second-stage sidelink control information, or in the first-stage sidelink control information and the second-stage sidelink control information, wherein each codepoint of the eleventh indication field corresponds to one application scope of the first information, and the eleventh indication field is an independent indication field, or the eleventh indication field is a jointly coded indication field.

11. A resource processing method, applied to a second device and comprising:

receiving first information sent by a first device; and

selecting or reserving, based on decoding of the first information, a resource for data transmission;

wherein the first information is carried in target information, the target information comprises sidelink control information, and the sidelink control information comprises second-stage sidelink control information;

wherein the first information comprises at least one of the following:

identification information of a first-information transmit end;

identification information of a first-information receive end; or

type indication information of the first information.

12. The method according to claim 11, wherein the first information further comprises at least one of the following:

time domain resource indication information;

frequency domain resource indication information;

time domain resource position offset information;

frequency domain resource position offset information;

function indication information of the first information; and

applicable range indication information of the first information.

13. The method according to claim 11, wherein the target information further comprises at least one of the following:

downlink control information;

radio resource control information;

direct communication link radio resource control information; and

sidelink feedback control information; wherein

the sidelink control information further comprises: first-stage sidelink control

information.

14. The method according to claim 12, wherein the function indication information of the first information is used to indicate at least one of the following:

indicating that the second device preferentially selects or preferentially reserves a resource indicated by the first information;

indicating that the second device non-preferentially selects or non-preferentially reserves a resource indicated by the first information;

indicating that the second device is allowed to select or reserve only a resource indicated by the first information; and

indicating that the second device is not allowed to select or reserve a resource indicated by the first information.

15. The method according to claim 12, wherein the applicable range indication information of the first information is used to indicate at least one of the following:

indicating that the first information is applicable to a unicast transmission mode;

indicating that the first information is applicable to a groupcast transmission mode; and

indicating that the first information is applicable to a broadcast transmission mode.

16. The method according to claim 12, wherein the type indication information of the first information is used to indicate at least one of the following:

indicating that the first information is non-assistance information; and

indicating that the first information is assistance information.

17. An electronic device, comprising a processor, a memory, and a program or instructions stored in the memory and capable of running on the processor, wherein when the program or instructions are executed by the processor, following steps are implemented:

sending first information to at least one second device, wherein the first information is used to assist the second device in selecting or reserving a resource for data transmission;

wherein the first information is carried in target information, the target information comprises sidelink control information, and the sidelink control information comprises second-stage sidelink control information;

wherein the first information comprises at least one of the following information:

identification information of a first-information transmit end;

identification information of a first-information receive end; or

type indication information of the first information.

18. The electronic device according to claim 17, wherein the first information further comprises at least one of the following:

time domain resource indication information;

frequency domain resource indication information;

time domain resource position offset information;

frequency domain resource position offset information;

function indication information of the first information; and

applicable range indication information of the first information.

19. The electronic device according to claim 17, wherein the target information further comprises at least one of the following:

downlink control information;

radio resource control information;

direct communication link radio resource control information; and

sidelink feedback control information; wherein

the sidelink control information further comprises: first-stage sidelink control information.

20. An electronic device, comprising a processor, a memory, and a program or instructions stored in the memory and capable of running on the processor, wherein when the program or instructions are executed by the processor, following steps are implemented:

receiving first information sent by a first device; and

selecting or reserving, based on decoding of the first information, a resource for data transmission;

wherein the first information is carried in target information, the target information comprises sidelink control information, and the sidelink control information comprises second-stage sidelink control information;

wherein the first information comprises at least one of the following information:

identification information of a first-information transmit end;

identification information of a first-information receive end; or

type indication information of the first information.