

CLAIMS

1. A method for transmitting Uplink Control Information (UCI), comprising:

5 determining, by a terminal device, a set of uplink control channel resources according to a first number of bits, the first number of bits being determined according to high-level parameters;

 receiving, by the terminal device, configuration information sent by a network device, the configuration information indicating an uplink control channel resource in
10 the set of uplink control channel resources;

 determining, by the terminal device, first UCI to be transmitted according to a channel format corresponding to the uplink control channel resource, a number of bits occupied by the first UCI being less than or equal to the first number of bits; and

 transmitting, by the terminal device, the first UCI in the uplink control channel
15 resource using the channel format;

wherein determining, by the terminal device, the first UCI to be transmitted according to the channel format corresponding to the uplink control channel resource comprises:

responsive to determining that the channel format corresponding to the uplink
20 control channel resource is a first type of channel format, determining, by the terminal device, that the number of bits occupied by the first UCI is equal to the first number of bits;

wherein a maximum number of bits supported by the first type of channel format is greater than a first threshold, and the first number of bits is equal to the first threshold.

25 2. The method of claim 1, wherein ~~the first number of bits is greater than or equal to~~ at the first threshold is 2.

30 ~~3. The method of claim 1 or 2, wherein determining, by the terminal device, the first UCI to be transmitted according to the channel format corresponding to the uplink control channel resource comprises:~~

~~responsive to determining that the channel format corresponding to the uplink control channel resource is a first type of channel format, determining, by the terminal~~

device, that the number of bits occupied by the first UCI is equal to the first number of bits;

~~wherein a maximum number of bits supported by the first type of channel format is greater than the first threshold.~~

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43. The method of claim 1 or 2, wherein determining, by the terminal device, the first UCI to be transmitted according to the channel format corresponding to the uplink control channel resource comprises:

responsive to determining that the channel format corresponding to the uplink control channel resource is a second type of channel format, determining, by the terminal device, that the first UCI is feedback information corresponding to a received Physical Downlink Shared Channel (PDSCH);

wherein a maximum number of bits supported by the second type of channel format is less than or equal to the first threshold.

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54. The method of claim 43, wherein before the terminal device determines that the first UCI is the feedback information corresponding to the received PDSCH, the method further comprises:

receiving, by the terminal device, a PDSCH in a target time unit set; or,
receiving, by the terminal device, at least one PDSCH in the target time unit set, a number of the at least one PDSCH being less than or equal to the first threshold, and each PDSCH carrying a transmission block,

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wherein the target time unit set comprises at least one target time unit, and the uplink control channel resource is configured to carry feedback information corresponding to PDSCHs received in a target time unit.

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65. A method for transmitting Uplink Control Information (UCI), comprising:

determining, by a network device, a set of uplink control channel resources according to a first number of bits, the first number of bits being determined according to high-level parameters;

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determining, by the network device, an uplink control channel resource from the set of uplink control channel resources, the uplink control channel resource being configured to receive first UCI sent by a terminal device;

determining, by the network device, the first UCI to be received according to a channel format corresponding to the uplink control channel resource, a number of bits occupied by the first UCI being less than or equal to the first number of bits; and

detecting, by the network device using the channel format, the first UCI sent by the terminal device in the uplink control channel resource;

wherein determining, by the network device, the first UCI to be received according to the channel format corresponding to the uplink control channel resource comprises:

responsive to determining that the channel format corresponding to the uplink control channel resource is a first type of channel format, determining, by the network device, that the number of bits occupied by the first UCI is equal to the first number of bits;

wherein a maximum number of bits supported by the first type of channel format is greater than a first threshold, and the first number of bits is equal to the first threshold.

~~76. The method of claim 65, wherein determining, by the network device, the first UCI to be received according to the channel format corresponding to the uplink control channel resource comprises:~~

~~responsive to determining that the channel format corresponding to the uplink control channel resource is a first type of channel format, determining, by the network device, that the number of bits occupied by the first UCI is equal to the first number of bits; wherein a maximum number of bits supported by the first type of channel format is greater than the first threshold is 2.~~

~~87. The method of claim 65 or 6, wherein determining, by the network device, the first UCI to be received according to the channel format corresponding to the uplink control channel resource comprises:~~

~~responsive to determining that the channel format corresponding to the uplink control channel resource is a second type of channel format, determining, by the network device, that the first UCI is feedback information corresponding to a sent Physical Downlink Shared Channel (PDSCH);~~

~~wherein a maximum number of bits supported by the second type of channel format is less than or equal to the first threshold.~~

98. The method of claim 78, wherein before the network device determines that the first UCI is the feedback information corresponding to the sent PDSCH, the method further comprises:

5 sending, by the network device, a PDSCH in a target time unit set; or,
 sending, by the network device, at least one PDSCH in the target time unit set, a number of the at least one PDSCH being less than or equal to the first threshold, and each PDSCH carrying a transmission block,

 wherein the target time unit set comprises at least one target time unit, and the
10 uplink control channel resource is configured to carry feedback information corresponding to PDSCHs sent in a target time unit.

109. A terminal device, comprising:

 a determination unit, configured to determine a set of uplink control channel
15 resources according to a first number of bits, the first number of bits being determined according to high-level parameters; and

 a communication unit, configured to receive configuration information sent by a network device, the configuration information indicating an uplink control channel resource in the set of uplink control channel resources determined by the determination
20 unit;

 wherein the determination unit is further configured to determine first Uplink Control Information (UCI) to be transmitted according to a channel format corresponding to the uplink control channel resource, a number of bits occupied by the first UCI being less than or equal to the first number of bits; and

25 the communication unit is further configured to transmit the first UCI determined by the first determination unit in the uplink control channel resource using the channel format;

wherein the determination unit is specifically configured to:
 responsive to determining that the channel format corresponding to the uplink
30 control channel resource is a first type of channel format, determine that the number of bits occupied by the first UCI is equal to the first number of bits;

wherein a maximum number of bits supported by the first type of channel format is greater than a first threshold, and the first number of bits is equal to the first threshold.

~~1110. The terminal device of claim 109, wherein the first number of bits is greater than or equal to the first threshold is 2.~~

5 ~~12. The terminal device of claim 10 or 11, wherein the determination unit is specifically configured to:~~

~~responsive to determining that the channel format corresponding to the uplink control channel resource is a first type of channel format, determine that the number of bits occupied by the first UCI is equal to the first number of bits;~~

10 ~~wherein a maximum number of bits supported by the first type of channel format is greater than the first threshold.~~

~~1311. The terminal device of claim 10-9 or 1110, wherein the determination unit is specifically configured to:~~

15 ~~responsive to determining that the channel format corresponding to the uplink control channel resource is a second type of channel format, determine that the first UCI is feedback information corresponding to a received Physical Downlink Shared Channel (PDSCH);~~

20 ~~wherein a maximum number of bits supported by the second type of channel format is less than or equal to the first threshold.~~

~~1412. The terminal device of claim 1311, wherein the communication unit is further configured to:~~

~~receive a PDSCH in a target time unit set; or,~~

25 ~~receive multiple PDSCHs in the target time unit set, a number of the multiple PDSCHs being less than or equal to the first threshold, and each PDSCH carrying a transmission block,~~

~~wherein the target time unit set comprises at least one target time unit, and the uplink control channel resource is configured to carry feedback information corresponding to PDSCHs received in a target time unit.~~

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~~15. The terminal device of any one of claims 10 to 14, wherein the first threshold is 2.~~

1613. A network device, comprising:

a determination unit, configured to determine a set of uplink control channel resources according to a first number of bits, the first number of bits being determined according to high-level parameters;

5 wherein the determination unit is further configured to determine an uplink control channel resource from the set of uplink control channel resources, the uplink control channel resource being configured to receive first Uplink Control Information (UCI) sent by a terminal device;

10 the determination unit is further configured to determine the first UCI to be received according to a channel format corresponding to the uplink control channel resource, a number of bits occupied by the first UCI being less than or equal to the first number of bits; and

a communication unit, configured to detect the first UCI sent by the terminal device in the uplink control channel resource using the channel format;

15 wherein the determination unit is specifically configured to:

responsive to determining that the channel format corresponding to the uplink control channel resource is a first type of channel format, determine that the number of bits occupied by the first UCI is equal to the first number of bits;

20 wherein a maximum number of bits supported by the first type of channel format is greater than a first threshold, and the first number of bits is equal to the first threshold.

~~1714. The network device of claim 1613, wherein the first number of bits is greater than or equal to a~~the first threshold is 2.

25 ~~18. The network device of claim 16 or 17, wherein the determination unit is specifically configured to:~~

~~responsive to determining that the channel format corresponding to the uplink control channel resource is a first type of channel format, determine that the number of bits occupied by the first UCI is equal to the first number of bits;~~

30 ~~wherein a maximum number of bits supported by the first type of channel format is greater than the first threshold.~~

1915. The network device of claim ~~16~~13 or ~~17~~14, wherein the determination unit is specifically configured to:

responsive to determining that the channel format corresponding to the uplink control channel resource is a second type of channel format, determine that the first UCI is feedback information corresponding to a sent Physical Downlink Shared Channel (PDSCH);

wherein a maximum number of bits supported by the second type of channel format is less than or equal to the first threshold.

10 ~~20~~16. The network device of claim ~~19~~15, wherein the communication unit is further configured to:

send a PDSCH in a target time unit set; or,

send at least one PDSCH in the target time unit set, a number of the at least one PDSCH being less than or equal to the first threshold, and each PDSCH carrying a transmission block,

wherein the target time unit set comprises at least one target time unit, and the uplink control channel resource is configured to carry feedback information corresponding to PDSCHs sent in a target time unit.

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