CLAIMS

What is claimed is:

1. A feedback message sending method, applied to a terminal device, wherein the method comprises:

in a case that M feedback messages are to be sent in a same time unit, sending an uplink control channel on a target resource in the time unit, wherein the uplink control channel carries the M feedback messages;

wherein the target resource is one of N resources, the N resources are resources configured to send feedback messages, the M feedback messages are hybrid automatic repeat request (HARQ) feedback messages for a semi-persistent scheduling physical downlink shared channel (PDSCH), the N resources comprise a third resource and M fourth resources, the third resource is a resource configured to transmit K feedback messages, each fourth resource is a resource configured to transmit one of the M feedback messages, and the target resource is the third resource;

wherein M is an integer greater than or equal to 2, N is an integer greater than or equal to M, and K is a preset integer greater than or equal to M;

wherein in a case that the third resource comprises a plurality of resources, before the sending an uplink control channel on a target resource in the time unit, the method further comprises:

determining the target resource based on a target factor, wherein

the target factor comprises at least one of the following: a bit quantity of the M feedback messages, a capacity of each resource in the third resource, a start symbol of each resource in the third resource, or a symbol length of each resource in the third resource.

wherein the method further comprises:

determining a bit sequence of the M feedback messages according to a predetermined rule, wherein

the predetermined rule comprises at least one of the following: ascending order of receiving time of downlink shared channels or downlink control channels corresponding to feedback messages, ascending order of configuration identifiers corresponding to downlink shared channels or downlink control channels corresponding to feedback messages, or ascending order of index numbers of serving cells in which downlink shared channels or downlink control channels corresponding to feedback messages are located.

2. The method according to claim 1, wherein

in a case that M is equal to 2, the M feedback messages comprise a first feedback message and a second feedback message, the N resources comprise a first resource and a second resource, the first resource is a resource configured to send the first feedback message, and the second resource is a resource configured to send the second feedback message; and

the target resource is a resource that satisfies a first condition in the first resource and the second resource.

3. The method according to claim 2, wherein the first condition is any one of the following: a resource for sending a target feedback message, a resource with a smaller symbol length in the first resource and the second resource, or a resource with a greater symbol length in the first resource and the second resource; wherein

the target feedback message is a feedback message for a first target shared channel or a feedback message for a second target shared channel; the first target shared channel is a downlink shared channel with an earlier receiving time or a downlink shared channel with a later receiving time in a first downlink shared channel and a second downlink shared channel; the second target shared channel is a downlink shared channel with a smaller configuration identifier in the first downlink shared channel and the second downlink shared channel; and the first downlink shared channel is a downlink shared channel for the first feedback message, and the second downlink shared channel is a downlink shared channel for the second feedback message.

4. The method according to claim 2 or 3, wherein a capacity of the uplink control channel is 2 bits.

5. The method according to claim 4, wherein a format of the uplink control channel is format 0 or format 1.

6. The method according to claim 1, wherein K is a maximum quantity of feedback messages scheduled in a same time unit.

7. The method according to claim 1, wherein

in a case that M is equal to 2, a capacity of the uplink control channel is equal to 2 bits; or

in a case that M is greater than 2, a capacity of the uplink control channel is greater than 2 bits.

8. The method according to claim 7, wherein

in a case that M is equal to 2, a format of the uplink control channel is either of the following: format 0 and format 1; or

in a case that M is greater than 2, a format of the uplink control channel is any one of the following: format 2, format 3, or format 4.

9. A terminal device, wherein the terminal device comprises a sending module;

the sending module is configured to: in a case that M feedback messages are to be sent in a same time unit, send an uplink control channel on a target resource in the time unit, wherein the uplink control channel carries the M feedback messages;

wherein the target resource is one of N resources, the N resources are resources configured to send feedback messages, the M feedback messages are hybrid automatic repeat request (HARQ) feedback messages for a semi-persistent scheduling physical downlink shared channel (PDSCH), the N resources comprise a third resource and M fourth resources, the third resource is a resource configured to transmit K feedback messages, each fourth resource is a resource configured to transmit one of the M feedback messages, and the target resource is the third resource;

wherein M is an integer greater than or equal to 2, N is an integer greater than or equal to M, and K is a preset integer greater than or equal to M;

wherein the terminal device further comprises a determining module; and

the determining module is configured to: in a case that the third resource comprises at least two resources, before the sending module sends the uplink control channel on the target resource in the time unit, determine the target resource based on a target factor, wherein

the target factor comprises at least one of the following: a bit quantity of the M feedback messages, a capacity of each resource in the third resource, a start symbol of each resource in the third resource, or a symbol length of each resource in the third resource.

wherein the determining module is further configured to determine a bit sequence of the M feedback messages according to a predetermined rule, wherein

the predetermined rule comprises at least one of the following: ascending order of receiving time of downlink shared channels or downlink control channels corresponding to feedback messages, ascending order of configuration identifiers corresponding to downlink shared channels or downlink control channels corresponding to feedback messages, or ascending order of index numbers of serving cells in which downlink shared channels or downlink control channels corresponding to feedback messages are located.

10. The terminal device according to claim 9, wherein K is a maximum quantity of feedback messages scheduled in a same time unit.

11. The terminal device according to claim 9 or 10, wherein

in a case that M is equal to 2, a capacity of the uplink control channel is equal to 2 bits; or

in a case that M is greater than 2, a capacity of the uplink control channel is greater than 2 bits.

12. The terminal device according to claim 11, wherein

in a case that M is equal to 2, a format of the uplink control channel is either of the following: format 0 and format 1; or

in a case that M is greater than 2, a format of the uplink control channel is any one of the following: format 2, format 3, or format 4.

13. A terminal device, comprising a processor, a memory, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the feedback message sending method according to any one of claims 1 to 8 are implemented.

14. A computer readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, the steps of the feedback message sending method according to any one of claims 1 to 8 are implemented.