

CLAIMS

1. A method for data transmission, characterized in that, the method comprising:
transmitting, by a terminal, uplink data without detection of grant;
5 detecting, by the terminal, grant information within a target time window and
generating a detection result, wherein the grant information is to indicate
configuration information of a data transmission channel; and
determining, by the terminal, whether to retransmit the uplink data based on
the detection result.

10 2. The method according to claim 1, further comprising:
receiving, by the terminal, indication information, wherein the indication
information is to indicate a length of the target time window and/or a start position of
the target time window.

15 3. The method according to claim 1 or claim 2, wherein the start position of the target
time window is any one of:

an ending position of the uplink data,
an ending position of a time unit for the uplink data,
20 a start position of a A-th time unit after the time unit for the uplink data, and
a start position of a B-th downlink control information transmission unit after
the uplink data,
wherein A and B are positive integers.

25 4. The method according to any one of claims 1 to 3, wherein
the target time window comprises L downlink control information
transmission units wherein the downlink control information transmission unit is
configured to transmit downlink control signaling, L is a positive integer.

30 5. The method according to any one of claims 1 to 4, wherein
the grant information is to schedule uplink data transmission; or
the grant information is to schedule downlink data transmission.

6. The method according to any one of claims 1 to 4, wherein the terminal determining whether to retransmit the uplink data based on the detection result comprises:

5 determining, by the terminal, not to retransmit the uplink data, in response to that the terminal determines the detection result is the grant information is received and that a value of an information domain of the grant information is a preset value.

7. The method according to any one of claims 1 to 4, wherein the terminal
10 determining whether to retransmit the uplink data based on the detection result comprises:

 determining, by the terminal, that the detection result is that the grant information is not received, and determining, by the terminal, that the network device does not receive the uplink data correctly; or

15 determining, by the terminal, that the network device does not receive the uplink data correctly, in response to that the terminal determines the detection result is the grant information is received and that a value of an information domain of the grant information is not equal to a preset value; or

 determining, by the terminal, that the detection result is that the grant
20 information is not received, and determining, by the terminal, to retransmit the uplink data; or

 determining, by the terminal, to retransmit the uplink data, in response to that the terminal determines the detection result is the grant information is received and that a value of an information domain of the grant information is not equal to a preset
25 value.

8. A terminal, characterized in that, the terminal comprising: a processing unit and a communication unit, wherein the processing unit is configured to:

30 transmit uplink data through the communication unit without detection of grant;

 detect grant information in a target time window and generate a detection result, wherein the grant information is to indicate configuration information of a data

transmission channel; and

determine, based on the detection result, whether to retransmit the uplink data.

9. The terminal according to claim 8, wherein the processing unit is further configured
5 to receive indication information through the communication unit, wherein the
indication information is to indicate a length of the target time window and/or a start
position of the target time window.

10. The terminal according to claim 8 or claim 9, wherein the start position of the
10 target time window is any one of:

an ending position of the uplink data,

an ending position of a time unit for the uplink data,

a start position of a A-th time unit after the time unit for the uplink data, and

a start position of a B-th downlink control information transmission unit after
15 the uplink data,

wherein A and B are positive integers.

11. The terminal according to any one of claims 8 to 10, wherein
the target time window comprises L downlink control information
20 transmission units, wherein the downlink control information transmission unit is
configured to transmit downlink control signaling, L is a positive integer.

12. The terminal according to any one of claims 8 to 11, wherein
the grant information is to schedule uplink data transmission; or
25 the grant information is to schedule downlink data transmission.

13. The terminal according to any one of claims 8 to 11, wherein the processing unit
is configured to determine that the detection result is that the grant information is
received, and to determine that the network device receives the uplink data correctly.
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14. The terminal according to any one of claims 8 to 11, wherein the processing unit
is configured to determine not to retransmit the uplink data, in response to that the
detection result is that the grant information is received and that a value of an

information domain of the grant information is a preset value.

15. The terminal according to any one of claims 8 to 11, wherein the processing unit is configured to:

5 determine that the detection result is that the grant information is not received, and to determine that the network device does not receive the uplink data correctly; or

 determine that the network device does not receive the uplink data correctly, in response to that the detection result is the grant information is received and that a value of an information domain of the grant information is not a preset value; or

10 determine that the detection result is that the grant information is not received, and determine to retransmit the uplink data; or

 determine to retransmit the uplink data, in response to that the detection result is the grant information is received and that a value of an information domain of the grant information is not a preset value.

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