

CLAIMS

1. A wireless network based communication method, comprising:
 - detecting, by a terminal device, first Downlink Control Information (DCI) sent by a network device;
 - detecting, by the terminal device, second DCI sent by the network device; and
 - sending or receiving, by the terminal device, target data according to a combination of control information in the first DCI and control information in the second DCI .
2. The method of claim 1, wherein the first DCI and the second DCI have different DCI formats from each other.
3. The method of claim 1 or claim 2, wherein length of information in the first DCI is different from length of information in the second DCI and/or information content in the first DCI is different from information content in the second DCI.
4. The method of any one of claims 1-3, wherein detecting, by a terminal device, first DCI sent by a network device comprises:
 - regularly detecting, by the terminal device, the first DCI sent by the network device at a first resource cycle; and
 - detecting, by the terminal device, second DCI sent by the network device comprises:
 - regularly detecting, by the terminal device, the second DCI sent by the network device at a second resource cycle.
5. The method of claim 4, wherein the first resource cycle and the second resource cycle are an integral multiple of a time domain resource unit for transmitting a signal; and the first resource cycle is greater than the second resource cycle.
6. The method of claim 4 or claim 5, wherein sending or receiving, by the terminal device, target data according to a combination of control information in the first DCI and control information in the second DCI comprises:
 - sending or receiving, by the terminal device, the target data according to a combination of control information in the second DCI detected within a current second resource cycle and control information in the first DCI detected recently.
7. The method of claim 4 or claim 5, further comprising:
 - not sending or receiving, by the terminal device, the data when the terminal device does not detect the second DCI within the current second resource cycle.
8. The method of any one of claims 1-7, wherein detecting, by a terminal device, first DCI sent by a network device comprises at least one of:
 - detecting, by the terminal device, the first DCI on a public control channel, or detecting, by the terminal device, the first DCI according to public transmission parameters of a cell.
9. The method of any one of claims 1-8, wherein detecting, by the terminal device, second DCI sent by the network device comprises:
 - detecting, by the terminal device, the second DCI on the public control channel; or

detecting, by the terminal device, the second DCI on parts of frequency domain resources of a system bandwidth.

10. The method of claim 9, wherein the parts of frequency domain resources are frequency domain resources indicated by the first DCI.

11. The method of any one of claims 1-10, wherein a control channel for carrying the second DCI and a data channel for carrying the target data occupy same time domain resources or same frequency domain resources.

12. The method of any one of claims 1-11, wherein the first DCI comprises at least one of the following information used when the terminal device sends or receives the target data:

- a sub-carrier interval;
- a total number of sub-carriers under a preset bandwidth;
- a total number of sub-carriers included in a Physical Resource Block (PRB);
- a length of an Orthogonal Frequency Division Multiplexing (OFDM) symbol;
- a total number of points used to generate an OFDM signal by Fourier transform or inverse Fourier transform;
- a total number of OFDM symbols comprised in a Transmission Time Interval (TTI);
- a total number of TTIs comprised in a preset time unit;
- signal prefix information;
- A/N feedback time sequence information;
- a physical resource distribution manner; or
- frequency hopping configuration information.

13. The method of any one of claims 1-12, wherein the second DCI comprises at least one of the following information used when the terminal device sends or receives the target data:

- a physical resource distribution information;
- uplink sending power control information;
- A/N feedback time sequence information;
- frequency hopping configuration information;
- Hybrid Automatic Repeat Request (HARQ) progress information;
- Channel State Information (CSI) reporting trigger information;
- Sounding Reference Signal (SRS) transmission trigger information;
- transmission block transmission information;
- uplink Demodulation Reference Signal (DMRS) configuration information; or
- downlink DMRS configuration information.

14. A wireless network based communication method, comprising:

sending, by a network device, first Downlink Control Information (DCI) to a terminal device; and

sending, by the network device, second DCI to the terminal device, wherein the first DCI and the second DCI are used by the terminal device to send or receive target data.

15. The method of claim 14, wherein the first DCI and the second DCI have different DCI formats from each other.

16. The method of claim 14 or claim 15, wherein length of information in the first DCI is different from length of information in the second DCI and/or information content in the first DCI is different from information content in the second DCI.

17. The method of any one of claims 14-16, wherein sending, by a network device, first DCI to a terminal device comprises:
regularly sending, by the network device, the first DCI to the terminal device at a first resource cycle; and
sending, by the network device, second DCI to the terminal device comprises:
regularly sending, by the network device, the second DCI to the terminal device at a second resource cycle.
18. The method of claim 17, wherein the first resource cycle and the second resource cycle are an integral multiple of a time domain resource unit for transmitting a signal; and the first resource cycle is greater than the second resource cycle.
19. A terminal device, comprising:
a memory having stored instructions thereon; and
a processor, configured to execute the instructions to implement the method of any one of claims 1-13.
20. A network device, comprising:
a memory having stored instructions thereon; and
a processor, configured to execute the instructions to implement the method of any one of claims 14-18.