

What is claim is:

1. A method for discontinuous reception, comprising:

detecting, by a first terminal device, a downlink control channel sent by a network device, wherein the downlink control channel carries a plurality of pieces of discontinuous reception (DRX) information of a plurality of terminal devices, and DRX information of each terminal device of the plurality of terminal devices is used for indicating that the each terminal device wakes up or sleeps during an on-duration of a DRX cycle after the DRX information of the each terminal device;

determining, by the first terminal device, DRX information of the first terminal device from the plurality of pieces of DRX information; and

waking up or sleeping, by the first terminal device, during the on-duration according to the DRX information of the first terminal device.

2. The method according to claim 1, wherein the downlink control channel carries a plurality of bit values, the plurality of bit values correspond to the plurality of pieces of DRX information one by one, and each bit value in the plurality of bit values is used for representing DRX information corresponding to the each bit value.

3. The method according to claim 1 or 2, wherein before the first terminal device detects the downlink control channel sent by the network device, the method further comprises:

receiving, by the first terminal device, first configuration information sent by the network device, wherein the first configuration information indicates a target RNTI used for detecting the downlink control channel;

wherein detecting, by the first terminal device, the downlink control channel sent by the network device comprises:

detecting, by the first terminal device, the downlink control channel according to the target RNTI.

4. The method according to any one of claims 1 to 3, wherein before the first terminal device detects the downlink control channel sent by the network device, the method further comprises:

receiving, by the first terminal device, second configuration information sent by the network device, wherein the second configuration information is used for indicating a channel format of the downlink control channel;

5 wherein detecting, by the first terminal device, the downlink control channel sent by the network device comprises:

detecting, by the first terminal device, the downlink control channel according to the channel format of the downlink control channel.

5. The method according to any one of claims 1 to 4, wherein detecting, by the first terminal device, the downlink control channel sent by the network device comprises:

10 detecting, by the first terminal device, the downlink control channel sent by the network device before the DRX cycle; or

detecting, by the first terminal device, the downlink control channel sent by the network device in a first subframe or a first slot during the on-duration of the DRX cycle; or

15 detecting, by the first terminal device, the downlink control channel sent by the network device in a common search space of a control channel.

6. The method according to any one of claims 1 to 5, wherein determining, by the first terminal device, the DRX information of the first terminal device from the plurality of pieces of DRX information comprises:

20 determining, by the first terminal device, the DRX information of the first terminal device according to a number of the first terminal device, wherein the DRX information of the first terminal device is DRX information corresponding to the number in the plurality of pieces of DRX information.

7. The method according to claim 6, wherein before the first terminal device determines the DRX information of the first terminal device according to the number of the first terminal device, the method further comprises:

receiving, by the first terminal device, third configuration information sent by the network device, wherein the third configuration information is used for indicating the number of the first terminal device.

8. A terminal device, wherein the terminal device is a first terminal device, the terminal device comprises:

a transceiving unit configured to detect a downlink control channel sent by a network device, wherein the downlink control channel carries a plurality of pieces of discontinuous reception (DRX) information of a plurality of terminal devices, and DRX information of each terminal device of the plurality of terminal devices is used for indicating that the each terminal device wakes up or sleeps during an on-duration of a DRX cycle after the DRX information of the each terminal device;

a determination unit configured to determine DRX information of the first terminal device from the plurality of pieces of DRX information detected by the transceiving unit (510); and

a processing unit configured to wake up or sleep during the on-duration according to the DRX information of the first terminal device determined by the determination unit (520).

9. The terminal device according to claim 8, wherein the downlink control channel carries a plurality of bit values, the plurality of bit values correspond to the plurality of pieces of DRX information one by one, and each bit value in the plurality of bit values is used for representing DRX information corresponding to the each bit value.

10. The terminal device according to claim 8 or 9, wherein the transceiving unit is further configured to:

receive first configuration information sent by the network device, wherein the first configuration information indicates a target RNTI used for detecting the downlink control channel; and

detect the downlink control channel according to the target RNTI.

11. The terminal device according to any one of claims 8 to 10, wherein the transceiving unit is further configured to:

receive second configuration information sent by the network device, wherein the second configuration information is used for indicating a channel format of the downlink control channel; and

detect the downlink control channel according to the channel format of the downlink

control channel.

12. The terminal device according to any one of claims 8 to 11, wherein the transceiving unit is specifically configured to:

detect the downlink control channel sent by the network device before the DRX cycle; or

5 detect the downlink control channel sent by the network device in a first subframe or a first slot during the on-duration of the DRX cycle; or

detect the downlink control channel sent by the network device in a common search space of a control channel.

10 13. The terminal device according to any one of claims 8-12, wherein the determination unit is specifically configured to:

determine the DRX information of the first terminal device according to a number of the first terminal device, wherein the DRX information of the first terminal device is DRX information corresponding to the number in the plurality of pieces of DRX information.

15 14. The terminal device according to claim 13, wherein the transceiving unit is further configured to:

receive third configuration information sent by the network device, wherein the third configuration information is used for indicating the number of the first terminal device.

15. A network device, comprising:

20 a determination unit configured to determine a plurality of pieces of discontinuous reception (DRX) information of a plurality of terminal devices, wherein DRX information of each terminal device of the plurality of terminal devices is used for indicating that the each terminal device wakes up or sleeps during an on-duration of a DRX cycle after the DRX information of the each terminal device; and

25 a transceiving unit configured to send a downlink control channel to a first terminal device, wherein the downlink control channel carries the plurality of pieces of DRX information determined by the determination unit, to enable the first terminal device to determine DRX information of the first terminal device from the plurality of pieces of DRX information, and to wake up or sleep during the on-duration according to the DRX information

of the first terminal device.

16. The network device according to claim 15, wherein the downlink control channel carries a plurality of bit values, the plurality of bit values correspond to the plurality of pieces of DRX information one by one, and each bit value in the plurality of bit values is used for
5 representing DRX information corresponding to the each bit value.

17. The network device according to claim 15 or 16, wherein the transceiving unit is further configured to:

send a mapping relationship between multiple control channel groups and multiple radio network temporary identities (RNTIs) to the first terminal device, wherein a target RNTI used
10 by the first terminal device for detecting the downlink control channel is an RNTI corresponding to a control channel group to which the downlink control channel belongs.

18. The network device according to claim 15 or 16, wherein the transceiving unit is further configured to:

send first configuration information to the first terminal device, wherein the first
15 configuration information indicates a target RNTI used for detecting the downlink control channel.

19. The network device according to any one of claims 15 to 18, wherein the transceiving unit is further configured to:

send second configuration information to the first terminal device, wherein the second
20 configuration information is used for indicating a channel format of the downlink control channel.

20. The network device according to any one of claims 15 to 19, wherein the transceiving unit is specifically configured to:

send the downlink control channel to the first terminal device before the DRX cycle; or
25 send the downlink control channel to the first terminal device in a first subframe or a first slot during the on-duration of the DRX cycle; or

send the downlink control channel to the first terminal device in a common search space of a control channel.