

the instructions stored in the memory, the execution causes the terminal device to perform the methods of the first aspect or any possible implementation manner of the first aspect, or the execution causes the terminal device to implement the terminal device provided by the third aspect.

[0030] In a sixth aspect, a network device is provided including: a processor, a transceiver, and a memory. The processor, the transceiver and the memory communicate with each other via an internal connection path. The memory stores instructions, and the processor is configured to execute the instructions stored in the memory. When the processor executes the instructions stored in the memory, the execution causes the network device to perform the methods of the second aspect or any possible implementation manner of the second aspect, or the execution causes the network device to implement the network device provided by the fourth aspect.

[0031] In a seventh aspect, there is provided a computer storage medium for storing a program, wherein the program causes a terminal device execute the methods of the first aspect or any possible implementation manner of the first aspect.

[0032] In an eighth aspect, there is provided a computer storage medium for storing a program, wherein the program causes a network device execute the methods of the second aspect or any possible implementation manner of the second aspect.

[0033] In a ninth aspect, there is provided a system chip, including an input interface, an output interface, a processor and a memory, wherein the processor is configured to execute instructions stored in the memory, and when the instructions are executed, the processor may implement any one of the methods of the first aspect and various implementations thereof.

[0034] In a tenth aspect, there is provided a system chip, including an input interface, an output interface, a processor and a memory, wherein the processor is configured to execute instructions stored in the memory, and when the instructions are executed, the processor may implement any one of the methods of the second aspect and various implementations thereof.

[0035] In an eleventh aspect, there is provided a computer program product including instructions. When run on a computer, the instructions cause the computer to perform the methods of the first aspect or any possible implementation manner of the first aspect.

[0050] FIG. 8 (c) is a schematic diagram of target time-frequency resources determined according to two sets of DRX parameters.

[0051] FIG. 9 is a schematic flow chart of a discontinuous reception method of an embodiment of the present disclosure.

[0052] FIG. 10 is a schematic block diagram of a terminal device of an embodiment of the present disclosure.

[0053] FIG. 11 is a schematic block diagram of a network device of an embodiment of the present disclosure.

[0054] FIG. 12 is a schematic structural diagram of a terminal device of an embodiment of the present disclosure.

[0055] FIG. 13 is a schematic structural diagram of a network device of an embodiment of the present disclosure.

[0056] FIG. 14 is a schematic structural diagram of a system chip of an embodiment of the present disclosure.

DETAILED DESCRIPTION

[0057] The technical solutions in the embodiments of the present disclosure will be described below with reference to the accompanying drawings.

[0058] It should be understood that the technical solutions of the embodiments of the present disclosure can be applied to various communication systems, such as a global system of mobile communication (GSM) system, a code division multiple access (CDMA) system, and a wideband code division multiple access (WCDMA) system, a long term evolution (LTE) system, a LTE frequency division duplex (FDD) system, a LTE time division duplex (TDD) , an universal mobile telecommunication system (UMTS), a future 5G communication systems and the like.

[0059] Various embodiments are described herein in connection with a terminal device. The terminal may be also referred to as a user equipment (UE), an access terminal, a subscriber unit, a subscriber station, a mobile station, mobile equipment, a remote station, a remote terminal, a mobile device, a user terminal, a terminal, a wireless communication device, a user agent, or a user device. The access terminal may be a cellular phone, a cordless

WHAT IS CLAIMED IS:

1. A discontinuous reception DRX method, comprising:
determining, by a terminal device, at least one set of DRX parameters;
determining, by the terminal device, a target time-frequency resource for monitoring a control channel according to the at least one set of DRX parameters; and
monitoring, by the terminal device, the control channel on the target time-frequency resource.

2. The method of claim 1, wherein determining, by the terminal device, a target time-frequency resource for monitoring a control channel according to the at least one set of DRX parameters comprises:

determining, by the terminal device, at least one time-frequency resource set for monitoring the control channel according to the at least one set of DRX parameters, wherein the at least one set of DRX parameters correspond to the at least one time-frequency resource set one to one; and

determining, by the terminal device, the target time-frequency resource according to the at least one time-frequency resource set, wherein the target time-frequency resource comprises the at least one time-frequency resource set.

3. The method of claim 2, wherein in the at least one time-frequency resource set, if a time-domain resource range of a first time-frequency resource in a first time-frequency resource set comprises a time-domain resource range of a second time-frequency resource in a second time-frequency resource set, the time-domain resource range of the second time-frequency resource is adjusted to the time-domain resource range of the first time-frequency resource.

4. The method of any one of claims 1 to 3, wherein each set of DRX parameters in the at least one set of DRX parameters comprise at least one of the following parameters:

an on duration time, an inactivity time, a retransmission time, a short DRX cycle, a long DRX cycle and a frequency monitoring range, wherein the frequency monitoring range

represents a range of a frequency domain resource for monitoring the control channel.

5. The method of claim 4, wherein each set of DRX parameters comprise one or more frequency monitoring ranges, and the frequency monitoring ranges are discontinuous in frequency domain.

6. The method of any one of claims 1 to 5, wherein determining, by a terminal device, at least one set of DRX parameters comprises:

determining, by the terminal device, at least one set of DRX parameters corresponding to at least one numerology according to at least one used numerology and a correspondence between multiple numerologies and multiple sets of DRX parameters.

7. The method of any one of claims 1 to 6, wherein determining, by a terminal device, at least one set of DRX parameters comprises:

receiving, by the terminal device, indication information sent by a network device, wherein the indication information is used for indicating the at least one set of DRX parameters.

8. The method of claim 7, wherein the indication information is a medium access control element MAC CE or downlink control information DCI.

9. The method of any one of claims 1 to 8, wherein determining, by a terminal device, at least one set of DRX parameters comprises:

determining, by the terminal device, the at least one set of DRX parameters from a plurality of sets of DRX parameters configured by a network device.

10. A discontinuous reception DRX method, comprising:

determining, by a network device, at least one set of DRX parameters;

determining, by the network device, a target time-frequency resource for sending a control channel according to the at least one set of DRX parameters; and

sending, by the network device, the control channel to a terminal device on the target time-frequency resource.

11. The method of claim 10, wherein determining, by the network device, a target time-frequency resource for sending a control channel according to the at least one set of DRX parameters, comprises:

determining, by the network device, at least one time-frequency resource set for sending the control channel according to the at least one set of DRX parameters, wherein the at least one set of DRX parameters correspond to the at least one time-frequency resource set one to one; and

determining, by the network device, the target time-frequency resource according to the at least one time-frequency resource set, wherein the target time-frequency resource comprises the at least one time-frequency resource set;

optionally,

wherein in the at least one time-frequency resource set, if a time-domain resource range of a first time-frequency resource in a first time-frequency resource set comprises a time-domain resource range of a second time-frequency resource in a second time-frequency resource set, the time-domain resource range of the second time-frequency resource is adjusted to the time-domain resource range of the first time-frequency resource.

12. The method of any one of claims 10 to 11, wherein each set of DRX parameters in the at least one set of DRX parameters comprise at least one of the following parameters:

an on duration time, an inactivity time, a retransmission time, a short DRX cycle, a long DRX cycle and a frequency monitoring range, wherein the frequency monitoring range represents a range of a frequency domain resource for monitoring the control channel;

optionally,

wherein each set of DRX parameters comprise one or more frequency monitoring ranges, and the frequency monitoring ranges are discontinuous in frequency domain.

13. The method of any one of claims 10 to 12, wherein determining, by a network

device, at least one set of DRX parameters comprises:

determining, by the network device, the at least one set of DRX parameters corresponding to at least one numerology according to at least one used numerology and a correspondence between multiple numerologies and multiple sets of DRX parameters.

14. The method of any one of claims 10 to 13, further comprising:

sending, by the network device, indication information to the terminal device, wherein the indication information is used for indicating the at least one set of DRX parameters;

optionally,

wherein the indication information is a medium access control element (MAC CE) or downlink control information (DCI).

15. The method of any one of claims 10 to 14, wherein determining at least one set of DRX parameters by the network device comprises:

determining, by the network device, the at least one set of DRX parameters from a plurality of sets of configured DRX parameters.

16. A terminal device, comprising:

a determining unit configured to determine at least one set of DRX parameters;

wherein the determining unit is further configured to determine a target time-frequency resource for monitoring a control channel according to the at least one set of DRX parameters; and

a monitoring unit configured to monitor the control channel on the target time-frequency resource determined by the determining unit.

17. A network device, comprising:

a determining unit configured to determine at least one set of DRX parameters;

wherein the determining unit is further configured to determine a target time-frequency resource for sending a control channel according to the at least one set of DRX parameters; and

a sending unit configured to send the control channel to a terminal device on the target time-frequency resource.