

CLAIMS

What is claimed is:

1. A configuration method, applied to a terminal device and comprising:

sending a first message to a network-side device, wherein ~~the first message explicitly or implicitly indicates a power saving mode or a power saving class of the terminal device;~~ the first message is configured to indicate power saving parameters of the terminal device, and the power saving parameters of the terminal device comprise:

a time interval between a physical downlink control channel (PDCCH) and a physical downlink shared channel (PDSCH) scheduled by the PDCCH;

a time interval between a PDCCH and a physical uplink shared channel (PUSCH) scheduled by the PDCCH;

the number of downlink multiple-input multiple-output (MIMO) layers; and

the number of uplink MIMO layers;

receiving, from the network-side device, first feedback information about the first message; and

determining, based on the first feedback information, value(s) of one or more first parameters related to ~~power consumption of the terminal device.~~

2. The method according to claim 1, wherein the sending a first message to a network-side device comprises:

sending the first message to the network-side device based on power consumption information of the terminal device.

3. The method according to claim 1, wherein the first feedback information comprises one or more of the following:

an acknowledgment (ACK) or a negative acknowledgment (NACK) of the first message;

an identity of a power saving mode or a power saving class configured by the network-side device for the terminal device; and

value(s) of one or more second parameters configured by the network-side device for the terminal device, wherein the second parameter is related to power consumption of the terminal device.

4. The method according to any one of claims 1 to 3, wherein

the first message comprises a first field, and a value of the first field corresponds to value(s) of one or more third parameters, wherein the third parameter is related to power consumption of the terminal device; or

the first message comprises a second field, and a value of the second field corresponds to

value(s) of one or more fourth parameters of a power saving mode or a power saving class; or

the first message comprises a third field, the third field comprises one or more first bit strings, and a value of each first bit string corresponds to a value of a fifth parameter, wherein the fifth parameter is related to power consumption of the terminal device.

5. The method according to claim 4, wherein

the third parameter and the value of the third parameter are configured by the network-side device or prescribed by a protocol; or

the fourth parameter and the value of the fourth parameter are configured by the network-side device or prescribed by a protocol; or

the fifth parameter and the value of the fifth parameter are configured by the network-side device or prescribed by a protocol.

6. The method according to any one of claims 1 to 5, wherein the first parameter, the power saving parameters of the terminal device further ~~second parameter, the third parameter, the fourth parameter, or the fifth parameter~~ comprises at least one of the following:

the number of transmit antennas or transmit channels of the terminal device;

the number of receive antennas or receive channels of the terminal device;

the number of simultaneously activated uplink component carriers;

the number of simultaneously activated downlink component carriers;

~~a time interval between a physical downlink control channel PDCCH and a physical downlink shared channel PDSCH scheduled by the PDCCH;~~

a time interval between a PDSCH and a corresponding ACK or NACK;

~~a time interval between a PDCCH and a physical uplink shared channel PUSCH scheduled by the PDCCH;~~

a PDSCH processing delay;

a PUSCH preparation delay;

~~the number of downlink multiple input multiple output (MIMO) layers;~~

~~the number of uplink MIMO layers;~~

PDCCH monitoring period;

PDCCH monitoring offset;

PDCCH monitoring duration;

a discontinuous reception (DRX) cycle;

a bandwidth of a bandwidth part (BWP);

an identity ID of a BWP;

dual connectivity (DC);

- non-dual connectivity (non-DC);
- the maximum uplink transmission data rate;
- the maximum downlink transmission data rate;
- the number of channel state information CSI reports simultaneously processable by the terminal device;
- the number of beam management reports simultaneously processable by the terminal device;
- the number of measurement resources simultaneously receivable or processable by the terminal device;
- a CSI report related delay; or
- a beam management report related delay.

7. A configuration method, applied to a network-side device and comprising:

receiving a first message from a terminal device, wherein ~~the first message explicitly or implicitly indicates a power saving mode or a power saving class of the terminal device; and the first message is configured to indicate power saving parameters of the terminal device, and the power saving parameters of the terminal device comprise:~~

a time interval between a physical downlink control channel (PDCCH) and a physical downlink shared channel (PDSCH) scheduled by the PDCCH;

a time interval between a PDCCH and a physical uplink shared channel (PUSCH) scheduled by the PDCCH;

the number of downlink multiple-input multiple-output (MIMO) layers; and

the number of uplink MIMO layers;

sending first feedback information about the first message to the terminal device, so that the terminal device determines, based on the first feedback information, value(s) of one or more first parameters related to ~~power consumption of the terminal device.~~

8. The method according to claim 7, wherein the first feedback information comprises one or more of the following:

- an ACK or a NACK of the first message;

- an identity of a power saving mode or a power saving class configured by the network-side device for the terminal device; and

- value(s) of one or more second parameters configured by the network-side device for the terminal device, wherein the second parameter is related to power consumption of the terminal device.

9. The method according to claim 7 or 8, wherein

- the first message comprises a first field, and a value of the first field corresponds to value(s)

of one or more third parameters, wherein the third parameter is related to power consumption of the terminal device; or

the first message comprises a second field, and a value of the second field corresponds to value(s) of one or more fourth parameters of a power saving mode or a power saving class; or

the first message comprises a third field, the third field comprises one or more first bit strings, and a value of each first bit string corresponds to a value of a fifth parameter, wherein the fifth parameter is related to power consumption of the terminal device.

10. The method according to any one of claims 7 to 9, wherein the power saving parameters of the terminal device further ~~first parameter, the second parameter, the third parameter, the fourth parameter, or the fifth parameter~~ comprises at least one of the following:

the number of transmit antennas or transmit channels of the terminal device;

the number of receive antennas or receive channels of the terminal device;

the number of simultaneously activated uplink component carriers;

the number of simultaneously activated downlink component carriers;

~~a time interval between a PDCCH and a PDSCH scheduled by the PDCCH;~~

a time interval between a PDSCH and a corresponding ACK or NACK;

~~a time interval between a PDCCH and a PUSCH scheduled by the PDCCH;~~

a PDSCH processing delay;

a PUSCH preparation delay;

~~the number of downlink MIMO layers;~~

~~the number of uplink MIMO layers;~~

a PDCCH monitoring period;

a PDCCH monitoring offset;

PDCCH monitoring duration;

a discontinuous reception DRX cycle;

a bandwidth of a BWP;

an ID of a BWP;

DC;

non-DC;

a maximum uplink transmission rate;

a maximum downlink transmission rate;

the number of CSI reports simultaneously processable by the terminal device;

the number of beam management reports simultaneously processable by the terminal device;

the number of measurement resources simultaneously receivable or processable by the

terminal device;

a CSI report related delay; and

a beam management report related delay.

11. A configuration method, applied to a terminal device and comprising:

~~receiving, from a network side device, configuration information of a power saving mode or a power saving class of the terminal device; and~~

~~setting, according to the configuration information, value(s) of one or more sixth parameters corresponding to the power saving mode or the power saving class of the terminal device.~~

12. The method according to claim 11, wherein the receiving, from a network side device, configuration information of a power saving mode or a power saving class of the terminal device comprises:

~~receiving the configuration information of the power saving mode or the power saving class of the terminal device by using radio resource control RRC signaling, media access control MAC signaling, or PDCCH signaling.~~

13. The method according to claim 11 or 12, wherein

~~the configuration information comprises a fourth field, and a value of the fourth field corresponds to value(s) of one or more seventh parameters, wherein the seventh parameter is related to power consumption of the terminal device; or~~

~~the configuration information comprises a fifth field, and a value of the fifth field corresponds to value(s) of one or more eighth parameters corresponding to a power saving mode or a power saving class; or~~

~~the configuration information comprises a sixth field, the sixth field comprises one or more second bit strings, and a value of each second bit string corresponds to a value of a ninth parameter, wherein the ninth parameter is related to power consumption of the terminal device.~~

14. The method according to claim 13, wherein

~~the seventh parameter and the value of the seventh parameter are configured by the network side device or prescribed by a protocol; or~~

~~the eighth parameter and the value of the eighth parameter are configured by the network side device or prescribed by a protocol; or~~

~~the ninth parameter and the value of the ninth parameter are configured by the network side device or prescribed by a protocol.~~

15. The method according to any one of claims 11 to 14, wherein the sixth parameter, the seventh parameter, the eighth parameter, or the ninth parameter comprises at least one of the following:

~~the number of transmit antennas or transmit channels of the terminal device;~~
~~the number of receive antennas or receive channels of the terminal device;~~
~~the number of simultaneously activated uplink component carriers;~~
~~the number of simultaneously activated downlink component carriers;~~
~~a time interval between a PDCCH and a PDSCH scheduled by the PDCCH;~~
~~a time interval between a PDSCH and a corresponding ACK or NACK;~~
~~a time interval between a PDCCH and a PUSCH scheduled by the PDCCH;~~
~~a PDSCH processing delay;~~
~~a PUSCH preparation delay;~~
~~the number of downlink MIMO layers;~~
~~the number of uplink MIMO layers;~~
~~a PDCCH monitoring period;~~
~~a PDCCH monitoring offset;~~
~~PDCCH monitoring duration;~~
~~a discontinuous reception DRX cycle;~~
~~a bandwidth of a BWP;~~
~~an ID of a BWP;~~
~~DC;~~
~~non-DC;~~
~~a maximum uplink transmission rate;~~
~~a maximum downlink transmission rate;~~
~~the number of CSI reports simultaneously processable by the terminal device;~~
~~the number of beam management reports simultaneously processable by the terminal device;~~
~~the number of measurement resources simultaneously receivable or processable by the terminal device;~~
~~a CSI report related delay; and~~
~~a beam management report related delay.~~

~~16. A configuration method, applied to a network side device and comprising:~~
~~sending configuration information of a power saving mode or a power saving class of a terminal device to the terminal device, so that the terminal device sets value(s) of one or more sixth parameters of the power saving mode or the power saving class of the terminal device according to the configuration information.~~

~~17. The method according to claim 16 or 17, wherein~~
~~the configuration information comprises a fourth field, and a value of the fourth field~~

~~corresponds to value(s) of one or more seventh parameters, wherein the seventh parameter is related to power consumption of the terminal device; or~~

~~the configuration information comprises a fifth field, and a value of the fifth field corresponds to value(s) of one or more eighth parameters of a power saving mode or a power saving class; or~~

~~the configuration information comprises a sixth field, the sixth field comprises one or more second bit strings, and a value of each second bit string corresponds to a value of a ninth parameter, wherein the ninth parameter is related to power consumption of the terminal device.~~

~~18. The method according to claim 17, wherein the sixth parameter, the seventh parameter, the eighth parameter, or the ninth parameter comprises at least one of the following:~~

~~the number of transmit antennas or transmit channels of the terminal device;~~

~~the number of receive antennas or receive channels of the terminal device;~~

~~the number of simultaneously activated uplink component carriers;~~

~~the number of simultaneously activated downlink component carriers;~~

~~a time interval between a PDCCH and a PDSCH scheduled by the PDCCH;~~

~~a time interval between a PDSCH and a corresponding ACK or NACK;~~

~~a time interval between a PDCCH and a PUSCH scheduled by the PDCCH;~~

~~a PDSCH processing delay;~~

~~a PUSCH preparation delay;~~

~~the number of downlink MIMO layers;~~

~~the number of uplink MIMO layers;~~

~~a PDCCH monitoring period;~~

~~a PDCCH monitoring offset;~~

~~PDCCH monitoring duration;~~

~~a bandwidth of a BWP;~~

~~an ID of a BWP;~~

~~DC;~~

~~non-DC;~~

~~a maximum uplink transmission rate;~~

~~a maximum downlink transmission rate;~~

~~the number of CSI reports simultaneously processable by the terminal device;~~

~~the number of beam management reports simultaneously processable by the terminal device;~~

~~the number of measurement resources simultaneously receivable or processable by the terminal device;~~

~~a CSI report related delay; and~~

~~a beam management report related delay.~~

~~19~~11. 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 configuration method according to any one of claims 1 to 6 are implemented, ~~or the steps of the configuration method according to any one of claims 12 to 16 are implemented.~~

~~20~~12. A network-side 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 configuration method according to any one of claims 7 to ~~11~~10 are implemented, ~~or the steps of the configuration method according to any one of claims 17 to 21 are implemented.~~