

CLAIMS

1. A method for a terminal power saving based on a Bandwidth Part (BWP), applied to a network device, the method comprising:

transmitting first Downlink Control Information (DCI) carrying a first information field to the terminal, wherein the first information field indicates one of at least two configuration states or configuration indexes of a first parameter, the first parameter is a configuration parameter associated with an active BWP of the terminal, and the first DCI further carries a second information field indicating the active BWP of the terminal, and wherein the first parameter comprises at least one of:

minimum value(s) of slot offset between DCI and its scheduled Physical Downlink Shared Channel (PDSCH); or

minimum value(s) of slot offset between DCI and its scheduled Physical Uplink Shared Channel (PUSCH)~~the active BWP comprises an active uplink (UL) BWP or an active downlink (DL) BWP.~~

2. The method of claim 1, wherein the first parameter further comprises at least one of:

~~minimum value(s) of slot offset between DCI and its scheduled Physical Downlink Shared Channel (PDSCH);~~

~~minimum value(s) of slot offset between DCI and its scheduled Physical Uplink Shared Channel (PUSCH);~~

a PDSCH-time domain resource allocation;

a PUSCH-time domain resource allocation;

a minimum value of Hybrid Automatic Repeat Request (HARQ) feedback timing;

Multiple Input Multiple Output (MIMO)-layers;

max MIMO-layers;

number of reception antennas;

number of transmission antennas;

an index of a search space;

a monitoring periodicity of the search space;

monitoring symbol(s) of the search space; or

Discontinuous Reception (DRX) configuration parameter(s).

3. The method of claim 1, further comprising:

before transmitting the first DCI,

determining, according to a determined target configuration state or target configuration index of the first parameter of the active BWP of the terminal, a value of the first information field in the first DCI, each configuration state or configuration index of the first parameter corresponding to a respective value of the first information field.

4. The method of claim 1, further comprising:

before transmitting the first DCI,

configuring, through high-layer signaling, at least two parameter values of at least one parameter in the first parameter for the terminal, each of the at least two parameter values being associated with a respective one of the at least two configuration states or configuration indexes.

5. A method for a terminal power saving based on a Bandwidth Part (BWP), applied to the terminal, the method comprising:

receiving first Downlink Control Information (DCI) carrying a first information field from a network device, wherein the first information field indicates one of at least two configuration states or configuration indexes of a first parameter, the first parameter is a configuration parameter associated with an active BWP of the terminal, and the first DCI further carries a second information field indicating the active BWP of the terminal and wherein the first parameter comprises at least one of:

minimum value(s) of slot offset between DCI and its scheduled Physical Downlink Shared Channel (PDSCH); or

minimum value(s) of slot offset between DCI and its scheduled Physical Uplink Shared Channel (PUSCH)~~the active BWP comprises an active uplink (UL) BWP or an active downlink (DL) BWP.~~

6. The method of claim 5, wherein the first parameter further comprises at least one of:

~~minimum value(s) of slot offset between DCI and its scheduled Physical Downlink Shared Channel (PDSCH);~~

~~minimum value(s) of slot offset between DCI and its scheduled Physical Uplink Shared Channel (PUSCH);~~

a PDSCH-time domain resource allocation;

a PUSCH-time domain resource allocation;

a minimum value of Hybrid Automatic Repeat Request (HARQ) feedback timing;

Multiple Input Multiple Output (MIMO)-layers;

max MIMO-layers;

number of reception antennas;

number of transmission antennas;

an index of a search space;

a monitoring periodicity of the search space;

monitoring symbol(s) of the search space; or

Discontinuous Reception (DRX) configuration parameter(s).

7. The method of claim 5, further comprising:

after receiving the first DCI,

in response to a target configuration state or a target configuration index indicated by the first information field in the first DCI received by the terminal being different from a current configuration state or a current configuration index of the first parameter associated with the active BWP of the terminal, setting, according to the target configuration state or the target configuration index, associated configuration information of the first parameter.

8. The method of claim 5, wherein each configuration state or configuration index of the first parameter corresponds to a respective value of the first information field.

9. The method of claim 5, further comprising:

before receiving the first DCI,

receiving at least two parameter values of at least one parameter in the first parameter configured by the network device through high-layer signaling, each of the at least two parameter values being associated with a respective one of the at least two configuration states or configuration indexes.

10. The method of claim 9, wherein

the at least two parameter values of at least one parameter in the first parameter are configured through an Information Element (IE) associated with the BWP; or,

the at least two parameter values of at least one parameter in the first parameter are configured through an IE associated with a physical channel, the physical channel comprising at least one of: Physical Downlink Control Channel (PDCCH), Physical Uplink Control Channel (PUCCH), Physical Downlink Shared Channel (PDSCH), or Physical Uplink Shared Channel (PUSCH).

~~11. The method of any one of claims 5 to 10, wherein~~

~~the first DCI further carries a second information field indicating the active BWP of the terminal;~~

~~or the method further comprises:~~

~~receiving second DCI carrying a third information field indicating the active BWP of the terminal from the network device.~~

~~12~~11. The method of any one of claims 5 to 10, further comprising:

before receiving the first DCI,

reporting a BWP capability parameter of the terminal to the network device, the BWP capability parameter indicating whether the terminal supports adaptation of at most N BWPs via DCI or a timer, wherein each of the N BWPs supports being configured with frequency domain position and bandwidth configuration information, subcarrier spacing configuration information, Cyclic Prefix (CP) configuration information, and at least two parameter values of at least one parameter in the first parameter, N being an integer equal to or greater than 2.

~~13~~12. A terminal, comprising:

a transceiver configured to receive first Downlink Control Information (DCI) carrying a first information field from a network device, wherein the first information field indicates one of at least two configuration states or configuration indexes of a first parameter, the first

parameter is a configuration parameter associated with an active BWP of the terminal, and the first DCI further carries a second information field indicating the active BWP of the terminal and wherein the first parameter comprises at least one of:

minimum value(s) of slot offset between DCI and its scheduled Physical Downlink Shared Channel (PDSCH); or

minimum value(s) of slot offset between DCI and its scheduled Physical Uplink Shared Channel (PUSCH)~~the active BWP comprises an active uplink (UL) BWP or an active downlink (DL) BWP.~~

~~1413.~~ The terminal of claim ~~13~~12, wherein the first parameter further comprises at least one of:

~~minimum value(s) of slot offset between DCI and its scheduled Physical Downlink Shared Channel (PDSCH);~~

~~minimum value(s) of slot offset between DCI and its scheduled Physical Uplink Shared Channel (PUSCH);~~

a PDSCH-time domain resource allocation;

a PUSCH-time domain resource allocation;

a minimum value of Hybrid Automatic Repeat Request (HARQ) feedback timing;

Multiple Input Multiple Output (MIMO)-layers;

max MIMO-layers;

number of reception antennas;

number of transmission antennas;

an index of a search space;

a monitoring periodicity of the search space;

monitoring symbol(s) of the search space; or

Discontinuous Reception (DRX) configuration parameter(s).

~~15~~14. The terminal of claim ~~13~~12, further comprising:

after receiving the first DCI,

a processor configured to set, in response to a target configuration state or a target configuration index indicated by the first information field in the first DCI received by the terminal being different from a current configuration state or a current configuration index of the first parameter associated with the active BWP of the terminal, associated configuration information of the first parameter according to the target configuration state or the target configuration index.

~~16~~15. The terminal of claim ~~12~~13, wherein each configuration state or configuration index of the first parameter corresponds to a respective value of the first information field.

~~16~~17. The terminal of claim ~~12~~13, wherein

before receiving the first DCI,

the transceiver is further configured to receive at least two parameter values of at least one parameter in the first parameter configured by the network device through high-layer signaling, each of the at least two parameter values being associated with a respective one of the at least two configuration states or configuration indexes.

~~17~~18. The terminal of claim ~~16~~17, wherein

the at least two parameter values of at least one parameter in the first parameter are configured through an Information Element (IE) associated with the BWP; or,

the at least two parameter values of at least one parameter in the first parameter are configured through an IE associated with a physical channel, the physical channel comprising at least one of: Physical Downlink Control Channel (PDCCH), Physical Uplink Control Channel (PUCCH), Physical Downlink Shared Channel (PDSCH), or Physical Uplink Shared Channel (PUSCH).

~~19. The terminal of any one of claims 13 to 18, wherein~~

~~the first DCI further carries a second information field indicating the active BWP of the terminal;~~

~~or,~~

~~the transceiver is further configured to receive second DCI carrying a third information field indicating the active BWP of the terminal from the network device.~~

~~20~~18. The terminal of any one of claims ~~12~~13 to ~~17~~18, wherein

before receiving the first DCI,

the transceiver is further configured to report a BWP capability parameter of the terminal to the network device, the BWP capability parameter indicating whether the terminal supports adaptation of at most N BWPs via DCI or a timer, wherein each of the N BWPs supports being configured with frequency domain position and bandwidth configuration information, subcarrier spacing configuration information, Cyclic Prefix (CP) configuration information, and at least two parameter values of at least one parameter in the first parameter, N being an integer equal to or greater than 2.