CLAIMS

What is claimed is:

1. A channel detection indication method, applied to a terminal and comprising:

obtaining at least two sets of configuration information, wherein the at least two sets of configuration information are related to monitoring a physical downlink control channel, PDCCH;

determining target configuration information from the at least two sets of configuration information; and

monitoring the PDCCH based on the target configuration information;

the step of determining target configuration information from the at least two sets of configuration information comprises:

based on downlink control information, DCI, selecting one set of configuration information that is indicated by the DCI, as the target configuration information, from the at least two sets of configuration information;

or

switching the target configuration information from first configuration information to second configuration information when a first trigger condition is met;

or

switching the target configuration information from the second configuration information to the first configuration information, when a second trigger condition is met; wherein the second configuration information is different from the first configuration information, the first configuration information is one of the at least two sets of configuration information, and the second configuration information is one of the at least two sets of configuration information;

before the step of based on downlink control information, DCI, selecting one set of configuration information that is indicated by the DCI, as the target configuration information, from the at least two sets of configuration information, the method further comprises:

detecting the DCI; and

sending, based on a detection result of the DCI, an acknowledgement or a non-acknowledgement, ACK/NACK, to a network device;

wherein the DCI is scheduling DCI or non-scheduling DCI;

wherein the first trigger condition comprises:

a first PDCCH that carries a target DCI format is received, wherein the target DCI format is one of preset DCI formats; or

a second PDCCH that is scrambled by a target RNTI is received, wherein the target RNTI comprises at least one of a cell radio network temporary identifier, C-RNTI, and a configured scheduling radio network temporary identifier, CS-RNTI;

wherein the second trigger condition comprises one of the following:

a target PDCCH is not received in N time domain transmission units, wherein the target PDCCH carries a target DCI format, or the target PDCCH is scrambled by a target RNTI, wherein the target RNTI comprises at least one of a C-RNTI and a CS-RNTI; the time domain transmission unit comprises a slot, a mini-slot, a millisecond, or a time domain symbol, and N is a positive integer;

an inactivity timer of a DRX cycle expires in a discontinuous reception, DRX, scenario; and

a DRX common media access control control element, MAC CE, is received, and the MAC CE indicates entering an opportunity for DRX of a DRX cycle.

2. The channel detection indication method according to claim 1, wherein the PDCCH corresponds to at least one DCI format, and/or the PDCCH corresponds to at least one radio network temporary identifier RNTI.

3. The channel detection indication method according to claim 1, wherein the at least two sets of configuration information are predefined, or the at least two sets of configuration information are configured by a network device via radio resource control, RRC, signaling~~, the step of determining target configuration information from the at least two sets of configuration information comprises:~~

~~based on downlink control information, DCI, selecting one set of configuration information that is indicated by the DCI, as the target configuration information, from the at least two sets of configuration information;~~

~~or~~

~~switching the target configuration information from first configuration information to second configuration information when a first trigger condition is met;~~

~~or~~

~~switching the target configuration information from the second configuration information to the first configuration information, when a second trigger condition is met,~~

~~wherein the second configuration information is different from the first configuration information, the first configuration information is one of the at least two sets of configuration information, and the second configuration information is one of the at least two sets of configuration information~~.

~~4. The channel detection indication method according to claim 3, wherein the first trigger condition comprises:~~

~~a first PDCCH that carries a target DCI format is received, wherein the target DCI format is one of preset DCI formats; or~~

~~a second PDCCH that is scrambled by a target RNTI is received, wherein the target RNTI~~

~~comprises at least one of a cell radio network temporary identifier, C-RNTI, and a configured scheduling radio network temporary identifier, CS-RNTI~~.

~~5~~4. The channel detection indication method according to claim ~~3~~1, wherein the step of switching the target configuration information from first configuration information to second configuration information when a first trigger condition is met comprises:

in a discontinuous reception, DRX, scenario, switching the target configuration information from the first configuration information to the second configuration information if the first PDCCH or the second PDCCH is received during an on-duration of a DRX cycle.

~~6. The channel detection indication method according to claim 3, wherein the second trigger condition comprises one of the following:~~

~~a target PDCCH is not received in N time-domain transmission units, wherein the target PDCCH carries a target DCI format, or the target PDCCH is scrambled by a target RNTI, wherein the target RNTI comprises at least one of a C-RNTI and a CS-RNTI; the time domain transmission unit comprises a slot, a mini-slot, a millisecond, or a time domain symbol, and N is a positive integer;~~

~~an inactivity timer of a DRX cycle expires in a discontinuous reception, DRX, scenario; and~~

~~a DRX common media access control control element, MAC CE, is received, and the MAC CE indicates entering an opportunity for DRX of a DRX cycle.~~

~~7~~5. The channel detection indication method according to claim ~~5~~1 or ~~6~~4, wherein the DRX cycle is a short DRX cycle or a long DRX cycle;

wherein the short DRX cycle and the long DRX cycle correspond to different first configuration information, or the short DRX cycle and the long DRX cycle correspond to the same first configuration information.

~~8~~6. The channel detection indication method according to claim ~~3~~1, wherein the configuration information comprises information indicating at least one of the following:

at least one control resource set;

at least one search space;

at least one PDCCH candidate;

at least one aggregation level;

the number of PDCCH candidates;

a maximum number of PDCCH candidates monitored in each slot; and

a monitoring parameter, wherein the monitoring parameter comprises at least one of a monitoring periodicity, a monitoring offset, a monitoring duration, and a start monitoring symbol in a slot.

~~9~~7. The channel detection indication method according to claim ~~8~~6, wherein a relationship

between the first configuration information and the second configuration information includes at least one of the following:

when the configuration information comprises at least one control resource set, the number of control resource sets indicated by the first configuration information is greater than the number of control resource sets indicated by the second configuration information;

when the configuration information comprises at least one search space, the number of search spaces indicated by the first configuration information is greater than the number of search spaces indicated by the second configuration information;

when the configuration information comprises at least one PDCCH candidate or the number of PDCCH candidates, the number of PDCCH candidates indicated by the first configuration information is greater than the number of PDCCH candidates indicated by the second configuration information;

when the configuration information comprises at least one aggregation level, the number of aggregation levels indicated by the first configuration information is greater than the number of aggregation levels indicated by the second configuration information;

when the configuration information comprises a maximum number of PDCCH candidates monitored in each slot, a maximum number indicated by the first configuration information is greater than a maximum number indicated by the second configuration information; and

when the configuration information comprises a monitoring parameter, a monitoring periodicity indicated by the first configuration information is less than a monitoring periodicity indicated by the second configuration information.

~~10. The channel detection indication method according to claim 3, wherein before the step of based on downlink control information, DCI, selecting one set of configuration information that is indicated by the DCI, as the target configuration information, from the at least two sets of configuration information, the method further comprises:~~

~~detecting the DCI; and~~

~~sending, based on a detection result of the DCI, an acknowledgement or a non-acknowledgement, ACK/NACK, to a network device.~~

~~11. The channel detection indication method according to claim 3, wherein the DCI is scheduling DCI or non-scheduling DCI.~~

~~12~~8. The channel detection indication method according to claim 1, wherein before the step of obtaining at least two sets of configuration information, the method further comprises:

sending report information to a network device, wherein the report information is used to indicate at least one of the following:

first candidate configuration information corresponding to an on-duration of a DRX cycle,

wherein the DRX cycle is a short DRX cycle or a long DRX cycle;

second candidate configuration information corresponding to a running period of an inactivity timer in the DRX cycle; and

third candidate configuration information corresponding to a case in which DRX is disabled in a connected state.

~~13~~9. A terminal, comprising:

an obtaining module, configured to obtain at least two sets of configuration information, wherein the at least two sets of configuration information are related to monitoring a physical downlink control channel, PDCCH;

a processing module, configured to determine target configuration information from the at least two sets of configuration information; and

a monitoring module, configured to monitor the PDCCH based on the target configuration information;

wherein the processing module comprises:

a first processing submodule, configured to, based on downlink control information DCI, select one set of configuration information indicated by the DCI, as the target configuration information, from the at least two sets of configuration information; or

a second processing submodule, configured to, when a first trigger condition is met, switch the target configuration information from first configuration information to second configuration information; or

a third processing submodule, configured to, when a second trigger condition is met, switch the target configuration information from second configuration information to first configuration information, where the second configuration information is different from the first configuration information, the first configuration information is one of the at least two sets of configuration information, and the second configuration information is one of the at least two sets of configuration information;

wherein the processing module further comprises:

a detection submodule, configured to detect the DCI; and

a feedback submodule, configured to send, based on a detection result of the DCI, an acknowledgement or a non-acknowledgement ACK/NACK to a network device;

wherein the DCI is scheduling DCI or non-scheduling DCI;

wherein the first trigger condition includes:

a first PDCCH that carries a target DCI format is received, where the target DCI format is one of preset DCI formats; or

a second PDCCH that is scrambled by a target RNTI is received, where the target RNTI

includes at least one of a cell radio network temporary identifier C-RNTI and a configured scheduling radio network temporary identifier CS-RNTI;

wherein the second trigger condition includes one of the following:

a target PDCCH is not received in N time domain transmission units, wherein the target PDCCH carries a target DCI format, or the target PDCCH is scrambled by a target RNTI, wherein the target RNTI includes at least one of a C-RNTI and a CS-RNTI, the time domain transmission unit includes a slot, a mini-slot, a millisecond, or a time domain symbol, and N is a positive integer;

an inactivity timer of a DRX cycle expires in a discontinuous reception DRX scenario; and

a DRX common media access control control element MAC CE is received, and the MAC CE indicates entering an opportunity for DRX of a DRX cycle.

~~14~~10. A channel detection indication method, applied to a network device and comprising:

sending, via radio resource control, RRC, signaling, at least two sets of configuration information to a terminal, wherein the at least two sets of configuration information are related to monitoring a physical downlink control channel, PDCCH;

sending downlink control information, DCI, to the terminal, wherein the DCI is used to indicate target configuration information in the at least two sets of configuration information;

wherein the DCI is scheduling DCI or non-scheduling DCI;

wherein after the step of sending downlink control information DCI to the terminal, the method further comprises:

receiving an acknowledgement or a non-acknowledgement ACK/NACK, wherein the ACK/NACK is sent by the terminal based on whether the DCI is detected.

~~15~~11. The channel detection indication method according to claim ~~14~~10, wherein the PDCCH corresponds to at least one DCI format and/or the PDCCH corresponds to at least one radio network temporary identifier RNTI.

~~16~~12. The channel detection indication method according to claim ~~14~~10, wherein the configuration information comprises information indicating at least one of the following:

at least one control resource set;

at least one search space;

at least one PDCCH candidate;

at least one aggregation level;

the number of PDCCH candidates;

a maximum number of PDCCH candidates monitored in each slot; and

a monitoring parameter, wherein the monitoring parameter comprises at least one of a monitoring periodicity, a monitoring offset, a monitoring duration, and a start monitoring symbol in a slot.

~~17. The channel detection indication method according to claim 14, wherein the DCI is scheduling DCI or non-scheduling DCI.~~

~~18. The channel detection indication method according to claim 14, wherein after the step of sending downlink control information DCI to the terminal, the method further comprises:~~

~~receiving an acknowledgement or a non-acknowledgement ACK/NACK, wherein the ACK/NACK is sent by the terminal based on whether the DCI is detected.~~

~~19~~13. The channel detection indication method according to claim ~~14~~10, wherein before the step of sending at least two sets of configuration information to a terminal, the method further comprises:

receiving report information, wherein the report information is used to indicate at least one of the following:

first candidate configuration information corresponding to an on-duration of a DRX cycle in which the terminal resides, wherein the DRX cycle is a short DRX cycle or a long DRX cycle;

second candidate configuration information corresponding to a running period of an inactivity timer in the DRX cycle in which the terminal resides; and

third candidate configuration information corresponding to a case in which DRX is disabled in a connected state.

~~20~~14. A network device, comprising:

a first sending module, configured to send, via radio resource control, RRC, signaling, at least two sets of configuration information to a terminal, wherein the at least two sets of configuration information are related to monitoring a physical downlink control channel, PDCCH;

a second sending module, configured to send downlink control information, DCI, to the terminal, wherein the DCI is used to indicate target configuration information in the at least two sets of configuration information;

wherein the DCI is scheduling DCI or non-scheduling DCI;

wherein the network device further comprises:

a first receiving module, configured to receive an acknowledgement or a non-acknowledgement ACK/NACK, wherein the ACK/NACK is sent by the terminal based on whether the DCI is detected.