

WHAT IS CLAIMED IS:

1. A method for skipping monitoring, performed by a base station, comprising:
 - sending physical downlink control channel (PDCCH) monitoring skipping information to a terminal, wherein the PDCCH monitoring skipping information indicates the terminal to skip a PDCCH monitoring on a predetermined carrier; and the predetermined carrier comprises at least one of a primary component carrier or a secondary component carrier;
 - wherein the PDCCH monitoring skipping information indicates:
 - not skipping the PDCCH monitoring on the primary component carrier, with a determination that a random access process is initiated on the primary component carrier;
 - not skipping the PDCCH monitoring on the primary component carrier, with a determination that a random access process is initiated on the secondary component carrier; or
 - not skipping the PDCCH monitoring on the primary component carrier and the secondary component carrier, with a determination that a random access process is initiated on the secondary component carrier.
2. The method according to claim 1, wherein sending the PDCCH monitoring skipping information to the terminal comprises:
 - sending the PDCCH monitoring skipping information to the terminal on the primary component carrier.
3. The method according to claim 1 or 2, wherein the predetermined carrier is the secondary component carrier; and the PDCCH monitoring skipping information indicates:
 - at least one secondary component carrier; and/or
 - at least one secondary component carrier group, wherein the secondary component carrier group comprises a plurality of secondary component carriers in a same frequency range (FR),optionally, the method further comprises:
 - determining an effective duration of the PDCCH monitoring skipping information according to a subcarrier spacing of a bandwidth part (BWP) configured by the secondary component carrier group or a subcarrier spacing of a BWP used by the terminal on the secondary component carrier.
4. The method according to claim 3, wherein the predetermined carrier is the secondary component carrier; and the PDCCH monitoring skipping information indicates the terminal to skip the PDCCH monitoring on the secondary component carrier, with a determination that the terminal initiates a random access process on the secondary component carrier.

5. The method according to claim 1 or 2, wherein the PDCCH monitoring skipping information indicates:

skipping the PDCCH monitoring on the primary component carrier and performing the PDCCH monitoring on the secondary component carrier; or

skipping the PDCCH monitoring on both the primary component carrier and the secondary component carrier,

optionally, a duration of skipping the PDCCH monitoring on the secondary component carrier is determined according to a duration of skipping the PDCCH monitoring on the primary component carrier,

optionally, the method further comprises:

determining an effective duration of the PDCCH monitoring skipping information according to a subcarrier spacing of a BWP configured by the primary component carrier, a subcarrier spacing of a BWP configured by the primary component carrier and the secondary component carrier, or a subcarrier spacing of a BWP used by the terminal on the primary component carrier.

6. The method according to claim 1 or 2, wherein the PDCCH monitoring skipping information indicates: not skipping the PDCCH monitoring on the primary component carrier when a random access process is initiated on the secondary component carrier and a random access response is monitored on the primary component carrier.

7. The method according to any one of claims 1 to 6, further comprising: receiving auxiliary information sent by the terminal, wherein the auxiliary information at least comprises information that skipping the PDCCH monitoring is expected.

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

a number of secondary cell groups;

information of the predetermined carrier; or

terminal capability information that skipping the PDCCH monitoring on the predetermined carrier is supported or not supported.

9. A method for skipping monitoring, performed by a terminal, comprising:

receiving physical downlink control channel (PDCCH) monitoring skipping information sent by a base station, wherein the PDCCH monitoring skipping information indicates a terminal to skip a PDCCH monitoring on a predetermined carrier; and the predetermined carrier comprises at

least one of a primary component carrier or a secondary component carrier;

wherein the method further comprising:

not skipping the PDCCH monitoring on the primary component carrier according to the indication of the PDCCH monitoring skipping information, with a determination that a random access process is initiated on the primary component carrier;

not skipping the PDCCH monitoring on the primary component carrier according to the indication of the PDCCH monitoring skipping information, with a determination that a random access process is initiated on the secondary component carrier; or

not skipping the PDCCH monitoring on the primary component carrier and the secondary component carrier according to the indication of the PDCCH monitoring skipping information, with a determination that a random access process is initiated on the secondary component carrier.

10. The method according to claim 9, wherein receiving the PDCCH monitoring skipping information sent by the base station comprises:

receiving, on the primary component carrier, the PDCCH monitoring skipping information sent by the base station.

11. The method according to claim 9 or 10, wherein the PDCCH monitoring skipping information indicates:

at least one secondary component carrier; and/or

at least one secondary component carrier group, wherein the secondary component carrier group comprises a plurality of secondary component carriers in a same frequency range (FR),

optionally, an effective duration of the PDCCH monitoring skipping information is determined according to a subcarrier spacing of a bandwidth part (BWP) configured by the secondary component carrier group or a subcarrier spacing of a BWP used by the terminal on the secondary component carrier.

12. The method according to claim 11, further comprising:

skipping the PDCCH monitoring on the secondary component carrier according to an indication of the PDCCH monitoring skipping information, with a determination that a random access process is initiated on the secondary component.

13. The method according to claim 9 or 10, wherein the predetermined carrier is the primary component carrier or the secondary component carrier; and the method further comprises:

skipping the PDCCH monitoring on the primary component carrier and performing the

PDCCH monitoring on the secondary component carrier according to an indication of the PDCCH monitoring skipping information; or

skipping the PDCCH monitoring on both the primary component carrier and the secondary component carrier according to an indication of the PDCCH monitoring skipping information,

optionally, a duration of skipping the PDCCH monitoring on the secondary component carrier is determined according to a duration of skipping the PDCCH monitoring on the primary component carrier,

optionally, an effective duration of the PDCCH monitoring skipping information is determined according to a subcarrier spacing of a BWP configured by the primary component carrier, a subcarrier spacing of a BWP configured by the primary component carrier and the secondary component carrier, or a subcarrier spacing of a BWP used by the terminal on the primary component carrier.

14. The method according to claim 9 or 10, further comprising:

not skipping the PDCCH monitoring on the primary component carrier when a random access process is initiated on the secondary component carrier and a random access response is monitored on the primary component carrier.

15. The method according to any one of claims 9 to 14, further comprising: sending auxiliary information to the base station, wherein the auxiliary information at least comprises information that skipping the PDCCH monitoring is expected.

16. The method according to claim 15, wherein the auxiliary information comprises one or more of:

a number of secondary cell groups;

information of the predetermined carrier; or

terminal capability information that skipping the PDCCH monitoring on the predetermined carrier is supported or not supported.

17. An apparatus for skipping monitoring, comprising:

a sending module, configured to send physical downlink control channel (PDCCH) monitoring skipping information to a terminal, wherein the PDCCH monitoring skipping information indicates the terminal to skip a PDCCH monitoring on a predetermined carrier; and the predetermined carrier comprises at least one of a primary component carrier or a secondary component carrier;

wherein the PDCCH monitoring skipping information indicates:

not skipping the PDCCH monitoring on the primary component carrier, with a determination that a random access process is initiated on the primary component carrier;

not skipping the PDCCH monitoring on the primary component carrier, with a determination that a random access process is initiated on the secondary component carrier; or

not skipping the PDCCH monitoring on the primary component carrier and the secondary component carrier, with a determination that a random access process is initiated on the secondary component carrier.

18. An apparatus for skipping monitoring, comprising:

a receiving module, configured to receive physical downlink control channel (PDCCH) monitoring skipping information sent by a base station, wherein the PDCCH monitoring skipping information indicates a terminal to skip a PDCCH monitoring on a predetermined carrier; and the predetermined carrier comprises at least one of a primary component carrier or a secondary component carrier;

wherein the method further comprising:

not skipping the PDCCH monitoring on the primary component carrier according to the indication of the PDCCH monitoring skipping information, with a determination that a random access process is initiated on the primary component carrier;

not skipping the PDCCH monitoring on the primary component carrier according to the indication of the PDCCH monitoring skipping information, with a determination that a random access process is initiated on the secondary component carrier; or

not skipping the PDCCH monitoring on the primary component carrier and the secondary component carrier according to the indication of the PDCCH monitoring skipping information, with a determination that a random access process is initiated on the secondary component carrier.

19. A communication device, comprising:

a memory; and

a processor, connected to the memory, and configured to implement the method according to any one of claims 1 to 8 or claims 9 to 16 by executing computer-executable instructions stored in the memory.

20. A computer storage medium, having stored therein computer-executable instructions that, when executed by a processor, cause the method according to any one of claims 1-8 or claims 9-16 to be implemented.