

CLAIMS

1. A method for monitoring a physical channel, applicable for a terminal device, comprising:

performing, by the terminal device, physical downlink control channel (PDCCH) monitoring on a first serving cell according to a first serving cell group, wherein the terminal device is configured with at least one serving cell group,

wherein the first serving cell is a serving cell comprised in the first serving cell group, and the first serving cell group is a serving cell group in the at least one serving cell group.

2. The method of claim 1, wherein performing, by the terminal device, PDCCH monitoring on the first serving cell according to the first serving cell group comprises:

performing, by the terminal device, PDCCH monitoring on the first serving cell according to a search space (SS) set corresponding to a first group identifier;

in response to detecting a first DCI format on a second serving cell in the first serving cell group by the terminal device according to the SS set corresponding to the first group identifier, performing, by the terminal device, starting from a first-slot on the first serving cell, PDCCH monitoring on the first serving cell according to a SS set corresponding to a second group identifier, and stopping performing PDCCH monitoring according to the SS set corresponding to the first group identifier.

3. The method of claim 2, wherein the first-slot comprises a first slot after at least P1 symbols after a last symbol of the PDCCH carrying the first DCI format.

4. The method of any one of claims 1 to 3, wherein performing, by the terminal device, PDCCH monitoring on the first serving cell according to the first serving cell group comprises:

in response to detecting a second DCI format by the terminal device in at least one SS set on a third serving cell in the first serving cell group, setting, by the terminal device, a first timer to a first timing value.

5. The method of any one of claims 1 to 4, wherein performing, by the terminal device, PDCCH monitoring on the first serving cell according to the first serving cell group comprises:

in response to performing PDCCH monitoring on the first serving cell by the terminal device according to a SS set corresponding to a second group identifier, performing, by the terminal device, starting from a second slot on the first serving cell, PDCCH monitoring on the first serving cell according to a SS set corresponding to a first group identifier, and stopping performing PDCCH monitoring according to the SS set corresponding to the second group identifier.

6. The method of claim 5, wherein the second slot comprises a first slot after at least P2 symbols after a corresponding slot when a first timer expires; or

wherein the second slot comprises a first slot after at least P2 symbols after a last symbol of a first remaining channel occupation length, wherein the first remaining channel occupation length comprises a remaining channel occupation length with a latest end position in at least one remaining channel occupation length corresponding to service cells in the first serving cell group, or a remaining channel occupation length with an earliest end position in at least one remaining channel occupation length corresponding to the service cells in the first service cell group, or a remaining channel occupation length corresponding to the second serving cell in the first service cell group, or

wherein the second slot is a slot that arrives earliest among the above slots.

7. The method of claim 2 or 3, wherein the first-slot is determined according to a first subcarrier spacing.

8. The method of claim 3, wherein P1 symbols are determined according to a first subcarrier spacing.

9. The method of claim 8, wherein,

in response to the first subcarrier spacing being 15kHz or a configuration of the first subcarrier spacing being $\mu=0$, P1 is greater than or equal to 10; or

in response to the first subcarrier spacing being 30kHz or the configuration of the first subcarrier spacing being $\mu=1$, P1 is greater than or equal to 12; or

in response to the first subcarrier spacing being 60kHz or the configuration of the first subcarrier spacing being $\mu=2$, P1 is greater than or equal to 22; or

in response to the first subcarrier spacing being 120kHz or the configuration of the first subcarrier spacing being $\mu=3$, P1 is greater than or equal to 25.

10. The method of claim 8, wherein,

in response to the first subcarrier spacing being 15kHz or a configuration of the first subcarrier spacing being $\mu=0$, P1 is greater than or equal to 5; or

in response to the first subcarrier spacing being 30kHz or the configuration of the first subcarrier spacing being $\mu=1$, P1 is greater than or equal to 5.5; or

in response to the first subcarrier spacing being 60kHz or the configuration of the first subcarrier spacing being $\mu = 2$, P1 is greater than or equal to 11.

11. The method of any one of claims 7 to 10, wherein,

the first subcarrier spacing is a minimum subcarrier spacing among subcarrier spacings corresponding to serving cells comprised in the first serving cell group.

12. The method of claim 4 or 6, wherein,

the first timer takes a slot as a timing unit, and after the first timer is set to take a value, the value of the first timer is subtracted by 1 every time one slot passes.

13. The method of claim 4, 6 or 12, wherein,

a slot corresponding to the first timer is determined according to the second subcarrier spacing.

14. The method of claim 13, wherein,

the second subcarrier spacing is a minimum subcarrier spacing among subcarrier spacings corresponding to serving cells comprised in the first serving cell group.

15. The method of claim 5 or 6, wherein the second slot is determined according to a third subcarrier spacing.

16. The method of claim 6, wherein P2 symbols are determined according to a third subcarrier spacing.

17. The method of claim 16, wherein,

in response to the third subcarrier spacing being 15kHz or a configuration of the third subcarrier spacing being $\mu = 0$, P2 is greater than or equal to 10; or

in response to the third subcarrier spacing being 30kHz or the configuration of the third subcarrier spacing being $\mu = 1$, P2 is greater than or equal to 12; or

in response to the third subcarrier spacing being 60kHz or the configuration of the third subcarrier spacing being $\mu = 2$, P2 is greater than or equal to 22; or

in response to the third subcarrier spacing being 120kHz or the configuration of the third subcarrier spacing being $\mu = 3$, P2 is greater than or equal to 25.

18. The method of claim 16, wherein,

in response to the third subcarrier spacing being 15kHz or a configuration of the third subcarrier spacing $\mu = 0$, P2 is greater than or equal to 5; or

in response to the third subcarrier spacing being 30kHz or the configuration of the third subcarrier spacing being $\mu = 1$, P2 is greater than or equal to 5.5; or

in response to the third subcarrier spacing being 60 kHz or the configuration of the third subcarrier spacing being $\mu = 2$, P2 is greater than or equal to 11.

19. The method of any one of claims 15 to 18, wherein,

the third subcarrier spacing is a minimum subcarrier spacing among subcarrier spacings corresponding to serving cells comprised in the first serving cell group.

20. A terminal device, comprising: a processor and a memory, wherein the memory is configured to store a computer program, the processor invokes and executes the computer program stored in the memory, and performs the steps of the method for monitoring physical channel of any one of claims 1 to 19.