

WHAT IS CLAIMED IS:

1. A data transmission method, comprising:

determining, by a terminal device, a Resource Block Group (RBG) size under a transmission bandwidth used by the terminal device according to a specific parameter M and the transmission bandwidth, wherein M is a positive integer;

receiving, by the terminal device, a bitmap borne in downlink control information sent by a network device, wherein the bitmap comprises M bits;

determining, by the terminal device, a target RBG for data transmission from N RBGs within the transmission bandwidth according to values on N bits from the M bits, wherein N is determined according to the transmission bandwidth and the RBG size, and N is a positive integer less than or equal to M ; and

transmitting, by the terminal device, the data with the network device on the target RBG.

2. The method according to claim 1, wherein the transmission bandwidth is equal to W , the RBG size is equal to S , and S is a minimum RBG size greater than W/M from a plurality of preset RBG sizes.

3. The method according to claim 1 or 2, wherein N is equal to $\lceil W/S \rceil$, and $\lceil \cdot \rceil$ refers to rounding up.

4. The method according to any one of claims 1 to 3, wherein before the determining, by the terminal device, the RBG size under the transmission bandwidth used by the terminal device according to the specific parameter M and the transmission bandwidth, the method further comprises:

determining, by the terminal device, an M corresponding to a basic parameter set used according to the basic parameter set, wherein different basic parameter sets are corresponding to different parameters M .

5. The method according to any one of claims 1 to 3, wherein before the determining, by the terminal device, the RBG size under the transmission bandwidth used by the terminal device according to the specific parameter M and the transmission bandwidth, the method further comprises:

receiving, by the terminal device, first indication information for indicating M sent by the network device, wherein the first indication information comprises Downlink Control Information (DCI), a Radio Resource Control (RRC) Signaling, System Information (SI) or a Media Access Control Element (MAC CE).

6. The method according to any one of claims 1 to 5, wherein before the determining, by the terminal device, the RBG size under the transmission bandwidth used by the terminal device according to the specific parameter M and the transmission bandwidth, the method further comprises:

determining, by the terminal device, the transmission bandwidth, wherein the terminal device uses different transmission bandwidths within different transmission time periods.

7. The method according to claim 6, wherein the determining, by the terminal device, the transmission bandwidth comprises:

receiving, by the terminal device, second indication information for indicating the transmission bandwidth sent by the network device, wherein the second indication information comprises DCI, a RRC Signaling, System Information (SI) or a MAC CE.

8. A data transmission method, comprising:

determining, by a network device, a Resource Block Group (RBG) size under a transmission bandwidth used for data transmission with a terminal device according to a specific parameter M and the transmission bandwidth, wherein M is a positive integer;

determining, by the network device, a target RBG for data transmission from N RBGs within the transmission bandwidth, wherein N is determined according to the transmission bandwidth and the RBG size, and N is a positive integer less than or equal to M;

generating, by the network device, a bitmap according to the target RBG, wherein the bitmap comprises M bits, and values on N bits from the M bits are used for indicating the target RBG;

sending, by the network device, the bitmap borne in downlink control information to the terminal device; and

transmitting, by the network device, the data with the terminal device on the target RBG.

9. The method according to claim 8, wherein the transmission bandwidth is equal to W, the RBG size is equal to S, and S is a minimum RBG size greater than W/M from a plurality of preset RBG sizes.

10. The method according to claim 8 or 9, wherein N is equal to $\lceil W/S \rceil$, and $\lceil \cdot \rceil$ refers to rounding up.

11. The method according to any one of claims 8 to 10, wherein before the determining, by the network device, the RBG size under the transmission bandwidth used for data transmission with the terminal device according to the M and the transmission bandwidth, the method further comprises:

determining, by the network device, an M corresponding to a basic parameter set used according to the basic parameter set, wherein different basic parameter sets are corresponding to different parameters M.

12. The method according to any one of claims 8 to 11, further comprising:

sending, by the network device, first indication information for indicating M to the terminal device, wherein the first indication information comprises Downlink Control Information DCI, a Radio Resource Control (RRC) Signaling, System Information (SI) or a Media Access Control Element (MAC CE).

13. The method according to any one of claims 8 to 12, wherein before the determining, by the network device, the RBG size under the transmission bandwidth used for data

transmission with the terminal device according to the M and the transmission bandwidth, the method further comprises:

determining, by the network device, the transmission bandwidth, wherein the network device uses different transmission bandwidths to perform data transmission with the terminal device within different transmission time periods.

14. The method according to claim 13, further comprising:

transmitting, by the network device, second indication information for indicating the transmission bandwidth to the terminal device, wherein the second indication information comprises DCI, a RRC Signaling, System Information (SI) or a MAC CE.

15. A terminal device, comprising:

a determination unit configured to determine a Resource Block Group (RBG) size under a transmission bandwidth used by the terminal device according to a specific parameter M and the transmission bandwidth, wherein M is a positive integer; and

a transmission unit configured to receive a bitmap borne in downlink control information sent by a network device, wherein the bitmap comprises M bits;

the determination unit being further configured to determine a target RBG for data transmission from N RBGs within the transmission bandwidth according to values on N bits from the M bits, wherein N is determined according to the transmission bandwidth and the RBG size, and N is a positive integer less than or equal to M ; and

the transmission unit being further configured to transmit the data with the network device on the target RBG.

16. The terminal device according to claim 15, wherein the transmission bandwidth is equal to W , the RBG size is equal to S , and S is a minimum RBG size greater than W/M from a plurality of preset RBG sizes.

17. The terminal device according to claim 15 or 16, wherein N is equal to $\lceil W/S \rceil$, and $\lceil \cdot \rceil$ refers to rounding up.

18. The terminal device according to any one of claims 15 to 17, wherein the determination unit is further configured to:

determine an M corresponding to a basic parameter set used according to the basic parameter set, wherein different basic parameter sets are corresponding to different parameters M.

19. The terminal device according to any one of claims 15 to 18, wherein the transmission unit is further configured to:

receive first indication information for indicating M sent by the network device, wherein the first indication information comprises Downlink Control Information DCI, a Radio Resource Control (RRC) Signaling, System Information (SI) or a Media Access Control Element (MAC CE).

20. The terminal device according to any one of claims 15 to 19, wherein the determination unit is further configured to:

determine the transmission bandwidth, wherein the terminal device uses different transmission bandwidths within different transmission time periods.

21. The terminal device according to claim 20, wherein the determination unit is specifically configured to:

receive second indication information for indicating the transmission bandwidth sent by the network device via the transmission unit, wherein the second indication information comprises DCI, a RRC Signaling, System Information (SI) or a MAC CE.

22. A network device, comprising:

a determination unit configured to determine a Resource Block Group (RBG) size under a transmission bandwidth used for data transmission with a terminal device according to a specific parameter M and the transmission bandwidth, wherein M is a positive integer;

the determination unit being further configured to determine a target RBG for data transmission from N RBGs within the transmission bandwidth, wherein N is determined according to the transmission bandwidth and the RBG size, and N is a positive integer less than or equal to M;

a processing unit configured to generate a bitmap according to the target RBG, wherein the bitmap comprises M bits, and values on N bits from the M bits are used for indicating the target RBG;

a transmission unit configured to send the bitmap borne in downlink control information to the terminal device; and

the transmission unit being further configured to transmit the data with the terminal device on the target RBG.

23. The network device according to claim 22, wherein the transmission bandwidth is equal to W, the RBG size is equal to S, and S is a minimum RBG size greater than W/M from a plurality of preset RBG sizes.

24. The network device according to claim 22 or 23, wherein N is equal to $\lceil W/S \rceil$, and $\lceil \cdot \rceil$ refers to rounding up.

25. The network device according to any one of claims 22 to 24, wherein the determination unit is further configured to:

determine an M corresponding to a basic parameter set used according to the basic parameter set, wherein different basic parameter sets are corresponding to different parameters M.

26. The network device according to any one of claims 22 to 25, wherein the transmission unit is further configured to:

send first indication information for indicating M to the terminal device, wherein the first indication information comprises Downlink Control Information DCI, a Radio Resource Control (RRC) Signaling, System Information (SI) or a Media Access Control Element (MAC CE).

27. The network device according to any one of claims 22 to 26, wherein the determination unit is further configured to:

determine the transmission bandwidth, wherein the network device uses different transmission bandwidths to perform data transmission with the terminal device within different transmission time periods.

28. The network device according to claim 27, wherein the transmission unit is further configured to:

send second indication information for indicating the transmission bandwidth to the terminal device, wherein the second indication information comprises DCI, a RRC Signaling, System Information (SI) or a MAC CE.