

CLAIMS

1. A resource configuration method, applied to user equipment, wherein the method comprises:

receiving first indication information and a configuration parameter that are sent by a network device, wherein the first indication information is used to indicate initially configured physical resource blocks (PRBs) in at least one LBT subband, and the configuration parameter comprises a subcarrier spacing (SCS);

determining a position of at least one intra-carrier guard band PRB in the at least one LBT subband based on the first indication information and the configuration parameter; and

determining a target PRB based on the initially configured PRBs and the position of the intra-carrier guard band PRB.

2. The method according to claim 1, wherein the determining a position of at least one intra-carrier guard band PRB in the at least one LBT subband based on the first indication information and the configuration parameter comprises:

determining guard band information based on the first indication information and the configuration parameter, wherein the guard band information comprises at least one of the following: a maximum quantity of transmission PRBs transmitted in the LBT subband, a minimum intra-carrier guard bandwidth, and a minimum quantity of intra-carrier guard band PRBs; and

determining the position of the intra-carrier guard band PRB based on the guard band information.

3. The method according to claim 2, wherein the determining guard band information based on the first indication information and the configuration parameter comprises at least one of the following:

determining the guard band information based on the SCS;

obtaining a bandwidth occupied by the initially configured PRBs or a subband quantity of the at least one LBT subband based on the first indication information, and determining the guard band information based on the occupied bandwidth or the subband quantity; and

determining the guard band information based on the processing capability.

4. The method according to claim 1, wherein the determining a target PRB based on the initially configured PRBs and the position of the intra-carrier guard band PRB comprises:

obtaining the target PRB by removing the intra-carrier guard band PRB from the initially configured PRBs.

5. The method according to claim 4, wherein the method further comprises:

receiving third indication information sent by the network device, wherein the third indication information is used to indicate a first LBT subband in the at least one LBT subband and instruct to remove the intra-carrier guard band PRB in the first LBT subband; and

the removing the intra-carrier guard band PRB from the initially configured PRBs comprises:

for first PRBs in the first LBT subband in the initially configured PRBs, removing the intra-carrier guard band PRB from the first PRBs.

6. A resource configuration method, applied to a network device, wherein the method comprises:

configuring at least one LBT subband and a configuration parameter for user equipment, wherein the at least one LBT subband comprises initially configured physical resource blocks (PRBs), and the configuration parameter comprises a subcarrier spacing (SCS);

determining positions of candidate intra-carrier guard band PRBs in the at least one LBT subband based on at least one of the at least one LBT subband, the configuration parameter, and a processing capability of the user equipment;

selecting at least one intra-carrier guard band PRB from the candidate intra-carrier guard band PRBs based on the positions of the candidate intra-carrier guard band PRBs; and

sending first indication information and fifth indication information to the user equipment, wherein the first indication information is used to indicate the initially configured PRBs in the at least one LBT subband, and the fifth indication information is used to indicate the at least one intra-carrier guard band PRB, so that the user equipment determines a target PRB based on the initially configured PRBs and the intra-carrier guard band PRB.

7. The method according to claim 6, wherein the determining positions of candidate intra-carrier guard band PRBs in the at least one LBT subband based on at least one of the at least

one LBT subband, the configuration parameter, and a processing capability of the user equipment comprises:

determining guard band information based on the at least one of the at least one LBT subband, the configuration parameter, and the processing capability, wherein the guard band information comprises at least one of the following: a maximum quantity of transmission PRBs transmitted in the LBT subband, a minimum intra-carrier guard bandwidth, and a minimum quantity of intra-carrier guard band PRBs; and

determining the positions of the candidate intra-carrier guard band PRBs based on the guard band information.

8. The method according to claim 7, wherein the determining guard band information based on the at least one of the at least one LBT subband, the configuration parameter, and the processing capability comprises at least one of the following:

determining the guard band information based on the SCS;

determining the guard band information based on a bandwidth occupied by the initially configured PRBs or a subband quantity of the at least one LBT subband; and

receiving the processing capability sent by the user equipment, and determining the guard band information based on the processing capability.

9. A resource configuration apparatus, applied to user equipment, wherein the apparatus comprises:

an information receiving module, configured to receive first indication information and a configuration parameter that are sent by a network device, wherein the first indication information is used to indicate initially configured physical resource blocks (PRBs) in at least one LBT subband, and the configuration parameter comprises a subcarrier spacing (SCS);

a PRB position determining module, configured to determine a position of at least one intra-carrier guard band PRB in the at least one LBT subband based on the first indication information and the configuration parameter; and

a PRB determining module, configured to determine a target PRB based on the initially configured PRBs and the position of the intra-carrier guard band PRB.

10. The apparatus according to claim 9, wherein the PRB position determining module comprises:

a guard band information determining module, configured to determine guard band information based on the first indication information and the configuration parameter, wherein the guard band information comprises at least one of the following: a maximum quantity of transmission PRBs transmitted in the LBT subband, a minimum intra-carrier guard bandwidth, and a minimum quantity of intra-carrier guard band PRBs; and

a guard band PRB position determining module, configured to determine the position of the intra-carrier guard band PRB based on the guard band information.

11. The apparatus according to claim 10, wherein the guard band information determining module comprises at least one of the following:

a first determining module, configured to determine the guard band information based on the SCS;

a second determining module, configured to determine the guard band information based on a bandwidth occupied by the initially configured PRBs or a subband quantity of the at least one LBT subband; and

a third determining module, configured to receive the processing capability sent by the user equipment, and determine the guard band information based on the processing capability.

12. The apparatus according to claim 9, wherein the PRB determining module is configured to remove the intra-carrier guard band PRB from the initially configured PRBs to obtain the target PRB.

13. The apparatus according to claim 12, further comprising:

a first indication receiving module, configured to receive third indication information sent by the network device, wherein the third indication information is used to indicate a first LBT subband in the at least one LBT subband and instruct to remove the intra-carrier guard band PRB in the first LBT subband;

wherein the PRB determining module is configured to: for first PRBs in the first LBT subband in the initially configured PRBs, remove the intra-carrier guard band PRB from the first PRBs.

14. A resource configuration apparatus, applied to a network device, wherein the apparatus comprises:

a first configuration module, configured to configure at least one LBT subband and a configuration parameter for user equipment, wherein the at least one LBT subband comprises initially configured physical resource blocks (PRBs), and the configuration parameter comprises a subcarrier spacing (SCS);

a PRB position determining module, configured to determine positions of candidate intra-carrier guard band PRBs in the at least one LBT subband based on at least one of the at least one LBT subband, the configuration parameter, and a processing capability of the user equipment;

a selection module, configured to select at least one intra-carrier guard band PRB from the candidate intra-carrier guard band PRBs based on the positions of the candidate intra-carrier guard band PRBs; and

an information sending module, configured to send first indication information and fifth indication information to the user equipment, wherein the first indication information is used to indicate the initially configured PRBs in the at least one LBT subband, and the fifth indication information is used to indicate the at least one intra-carrier guard band PRB, so that the user equipment determines a target PRB based on the initially configured PRBs and the intra-carrier guard band PRB.

15. The apparatus according to claim 15, wherein the PRB position determining module comprises:

a guard band information determining module, configured to determine guard band information based on the at least one of the at least one LBT subband, the configuration parameter, and the processing capability, wherein the guard band information comprises at least one of the following: a maximum quantity of transmission PRBs transmitted in the LBT subband, a minimum intra-carrier guard bandwidth, and a minimum quantity of intra-carrier guard band PRBs; and

a guard band PRB position determining module, configured to determine the positions of the candidate intra-carrier guard band PRBs based on the guard band information.

16. User equipment, comprising a processor, a memory, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is

executed by the processor, steps of the resource configuration method according to any one of claims 1 to 5 are implemented.

17. A network device, comprising a processor, a memory, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, steps of the resource configuration method according to any one of claims 6 to 8 are implemented.

18. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, steps of the resource configuration method according to any one of claims 1 to 8 are implemented.