CLAIMS

1. A resource determining method, wherein the method comprises:

determining a first frequency and/or a second frequency; and

determining a correspondence between M frequency domain resources for frequency hopping and N time units based on the first frequency and/or the second frequency, wherein the N time units are for sending or receiving reference signals, the first frequency is a lowest frequency domain position of frequency domain resources occupied for sending or receiving the reference signals, and the second frequency is a highest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, wherein M is an integer greater than 1, and N is an integer greater than 1.

2. The method according to claim 1, wherein the first frequency is a sum of a reference frequency and a first frequency domain offset, and/or the second frequency is a sum of a reference frequency and a second frequency domain offset, wherein the reference frequency is one of the following: a start frequency of a BWP, a highest frequency of the BWP, a center frequency of the BWP, or a reference frequency corresponding to the BWP.

3. The method according to claim 1 or 2, wherein a frequency domain resource corresponding to a Kth time unit in the N time units is determined based on the first frequency, and the frequency domain resource corresponding to the Kth time unit is a frequency domain resource whose frequency domain position is the lowest or highest in the M frequency domain resources.

4. The method according to claim 3, wherein that the frequency domain resource corresponding to the Kth time unit is determined based on the first frequency comprises: the frequency domain resource corresponding to the Kth time unit is determined based on the third frequency, and a frequency domain resource corresponding to the third frequency is the frequency domain resource whose frequency domain position is the highest in the M frequency domain resources, wherein

the third frequency is determined based on the first frequency and a total bandwidth occupied by the M frequency domain resources.

5. The method according to claim 1 or 2, wherein a frequency domain resource corresponding to a Kth time unit in the N time units is determined based on the second frequency, and the frequency domain resource corresponding to the Kth time unit is a frequency domain resource whose frequency domain position is the lowest or highest in the M frequency domain resources.

6. The method according to claim 5, wherein that the frequency domain resource corresponding to the Kth time unit is determined based on the second frequency comprises: the frequency domain resource corresponding to the Kth time unit is determined based on the fourth

frequency, and a frequency domain resource corresponding to the fourth frequency is the frequency domain resource whose frequency domain position is the lowest in the M frequency domain resources, wherein

the fourth frequency is determined based on the second frequency and a total bandwidth occupied by the M frequency domain resources.

7. The method according to any one of claims 1 to 6, wherein the method further comprises:

receiving frequency hopping configuration information, wherein the frequency hopping configuration information indicates at least one of the following: the first frequency, the second frequency, or a combined bandwidth.

8. The method according to claim 7, wherein the frequency hopping configuration information further indicates at least one of the following: position information of a frequency domain resource corresponding to a 1st time unit in the N time units, time domain position information corresponding to the 1st time unit in the N time units, a bandwidth of a frequency domain resource corresponding to an ith time unit, an overlapped size between the frequency domain resource corresponding to the ith time unit and a frequency domain resource corresponding to a jth time unit, a quantity of frequency hopping times, a corresponding frequency domain offset between two adjacent time units in the N time units, or a time interval between the ith time unit and the jth time unit, wherein the ith time unit and the jth time unit are time units in the N time units, and $1 \le i \ne j \le N$.

9. The method according to any one of claims 1 to 8, wherein the method further comprises:

sending expected configuration information, wherein the expected configuration information indicates at least one of the following: the lowest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the highest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the combined bandwidth, or a frequency domain position relationship between a reference frequency domain position and the frequency domain resource whose frequency domain position is the lowest or the frequency domain resource whose frequency domain position is the highest in the M frequency domain resources, wherein

the reference frequency domain position comprises at least one of the following: the first frequency, the third frequency, the second frequency, or the fourth frequency, wherein the frequency domain resource corresponding to the third frequency is the frequency domain resource whose frequency domain position is the highest in the M frequency domain resources, and the frequency domain resource corresponding to the fourth frequency is the frequency domain resource whose frequency domain position is the lowest in the M frequency domain resources.

10. The method according to any one of claims 1 to 9, wherein the method further comprises:

receiving first request information, wherein the first request information is for requesting the expected configuration information, and the expected configuration information indicates the at least one of the following: the lowest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the highest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the combined bandwidth, or the frequency domain position relationship between the reference frequency domain position and the frequency domain resource whose frequency domain position is the lowest or the frequency domain resource whose frequency domain position is the highest in the M frequency domain resources, wherein

the reference frequency domain position comprises the at least one of the following: the first frequency, the third frequency, the second frequency, or the fourth frequency, wherein the frequency domain resource corresponding to the third frequency is the frequency domain resource whose frequency domain position is the highest in the M frequency domain resources, and the frequency domain resource corresponding to the fourth frequency is the frequency domain resource whose frequency domain position is the lowest in the M frequency domain resources.

11. The method according to any one of claims 1 to 10, wherein the method further comprises:

sending second request information, wherein the second request information is for requesting configuration information, and the configuration information indicates at least one of the following: the lowest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the highest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the combined bandwidth, or the frequency domain position relationship between the reference frequency domain position and the frequency domain resource whose frequency domain position is the lowest or the frequency domain resource whose frequency domain position is the highest in the M frequency domain resources, wherein

the reference frequency domain position comprises the at least one of the following: the first frequency, the third frequency, the second frequency, or the fourth frequency, wherein the frequency domain resource corresponding to the third frequency is the frequency domain resource whose frequency domain position is the highest in the M frequency domain resources, and the frequency domain resource corresponding to the fourth frequency is the frequency domain resource whose frequency domain position is the lowest in the M frequency domain resources.

12. The method according to claim 11, wherein the second request information comprises the expected configuration information.

13. The method according to any one of claims 1 to 12, wherein the reference signal is for positioning.

14. A resource determining method, wherein the method comprises:

generating frequency hopping configuration information, wherein the frequency hopping configuration information is for determining an association relationship between a plurality of frequency domain resources and a plurality of time domain resources, the plurality of frequency domain resources are for frequency hopping, and the plurality of time domain resources are for sending or receiving reference signals, wherein the frequency hopping configuration information comprises information indicating at least one of the following: a first frequency, a second frequency, or a combined bandwidth, the first frequency is a lowest frequency domain position of frequency domain resources occupied for sending or receiving the reference signals, the second frequency is a highest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, and the combined bandwidth is a total bandwidth occupied by the plurality of frequency domain resources; and

sending the frequency hopping configuration information.

15. The method according to claim 14, wherein the first frequency is a sum of a reference frequency and a first frequency domain offset, and/or the second frequency is a sum of a reference frequency and a second frequency domain offset, wherein the reference frequency is at least one of the following: a start frequency of a BWP, a highest frequency of the BWP, or a reference frequency corresponding to the BWP.

16. The method according to claim 14 or 15, wherein the reference signal is for positioning.

17. The method according to any one of claims 14 to 16, wherein the plurality of time domain resources comprise N time units, and the frequency hopping configuration information further indicates at least one of the following: position information of a frequency domain resource corresponding to a 1st time unit in the N time units, time domain position information corresponding to the 1st time unit in the N time units, a bandwidth of a frequency domain resource corresponding to an ith time unit, an overlapped size between the frequency domain resource corresponding to the ith time unit and a frequency domain resource corresponding to a jth time unit, a quantity of frequency hopping times, a corresponding frequency domain offset between two adjacent time units in the N time units, or a time interval between the ith time unit and the jth time unit, wherein the ith time unit and the jth time unit are time units in the N time units, and $1 \leq i \neq j \leq N$.

18. The method according to any one of claims 14 to 17, wherein the method further comprises:

receiving expected configuration information, wherein the expected configuration information indicates at least one of the following: the lowest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the highest frequency domain position of the frequency domain resources occupied for sending or receiving

the reference signals, the combined bandwidth, or a frequency domain position relationship between a reference frequency domain position and a frequency domain resource whose frequency domain position is the lowest or highest in the plurality of frequency domain resources, wherein

the reference frequency domain position comprises at least one of the following: the first frequency, a third frequency, the second frequency, or a fourth frequency, wherein a frequency domain resource corresponding to the third frequency is the frequency domain resource whose frequency domain position is the highest in the plurality of frequency domain resources, and a frequency domain resource corresponding to the fourth frequency is the frequency domain resource whose frequency domain position is the lowest in the plurality of frequency domain resources.

19. The method according to any one of claims 14 to 18, wherein the method further comprises:

sending first request information, wherein the first request information is for requesting the expected configuration information, and the expected configuration information indicates the at least one of the following: the lowest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the highest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the combined bandwidth, or the frequency domain position relationship between the reference frequency domain position and the frequency domain resource whose frequency domain position is the lowest or the frequency domain resource whose frequency domain position is the highest in the plurality of frequency domain resources, wherein

the reference frequency domain position comprises the at least one of the following: the first frequency, the third frequency, the second frequency, or the fourth frequency, wherein the frequency domain resource corresponding to the third frequency is the frequency domain resource whose frequency domain position is the highest in the plurality of frequency domain resources, and the frequency domain resource corresponding to the fourth frequency is the frequency domain resource whose frequency domain position is the lowest in the plurality of frequency domain resources.

20. The method according to any one of claims 14 to 19, wherein the method further comprises:

receiving second request information, wherein the second request information is for requesting configuration information, and the configuration information indicates at least one of the following: the lowest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the highest frequency domain position of the frequency domain resources occupied for sending or receiving the reference signals, the combined

bandwidth, or the frequency domain position relationship between the reference frequency domain position and the frequency domain resource whose frequency domain position is the lowest or the frequency domain resource whose frequency domain position is the highest in the plurality of frequency domain resources, wherein

the reference frequency domain position comprises the at least one of the following: the first frequency, the third frequency, the second frequency, or the fourth frequency, wherein the frequency domain resource corresponding to the third frequency is the frequency domain resource whose frequency domain position is the highest in the plurality of frequency domain resources, and the frequency domain resource corresponding to the fourth frequency is the frequency domain resource whose frequency domain position is the lowest in the plurality of frequency domain resources.

21. The method according to claim 20, wherein the second request information comprises the expected configuration information.

22. A resource determining method, wherein the method comprises:

receiving frequency hopping configuration information, wherein the frequency hopping configuration information indicates that an ith time unit in N time units is associated with a jth frequency domain resource in M frequency domain resources, the M frequency domain resources are for frequency hopping, and the N time units are for sending or receiving reference signals, wherein M is an integer greater than 1, N is an integer greater than 1, $1 \leq i \leq N$, and $1 \leq j \leq M$; and

determining a correspondence between the N time units and the M frequency domain resources based on the frequency hopping configuration information.

23. A resource determining method, wherein the method comprises:

generating frequency hopping configuration information, wherein the frequency hopping configuration information indicates that an ith time unit in N time units is associated with a jth frequency domain resource in M frequency domain resources, the M frequency domain resources are for frequency hopping, and the N time units are for sending or receiving reference signals, wherein M is an integer greater than 1, N is an integer greater than 1, $1 \leq i \leq N$, and $1 \leq j \leq M$; and

sending the frequency hopping configuration information.

24. The method according to claim 22 or 23, wherein the frequency hopping configuration information comprises time domain sequence information, and the time domain sequence information indicates that the ith time unit is associated with the jth frequency domain resource.

25. The method according to claim 24, wherein the frequency hopping configuration information further comprises frequency domain index information, and the frequency domain index information comprises index information of the jth frequency domain resource.

26. The method according to any one of claims 22 to 25, wherein the M frequency domain

resources are determined based on a first frequency hopping parameter set; and

the first frequency hopping parameter set comprises at least one of the following: position information of a frequency domain resource corresponding to a 1st time unit in the N time units, time domain position information corresponding to the 1st time unit in the N time units, a bandwidth of a frequency domain resource corresponding to the ith time unit, an overlapped size between the frequency domain resource corresponding to the ith time unit and a frequency domain resource corresponding to an Lth time unit in the N time units, a quantity of frequency hopping times, a corresponding frequency domain offset between two adjacent time units in the N time units, or a time interval between the ith time unit and the Lth time unit, wherein $1 \leq i \neq L \leq N$.

27. A communication apparatus, wherein the communication apparatus comprises a module or unit configured to perform the resource determining method according to any one of claims 1 to 13, a module or unit configured to perform the resource determining method according to any one of claims 14 to 21, a module or unit configured to perform the resource determining method according to any one of claims 22 and 24 to 26, or a module or unit configured to perform the resource determining method according to any one of claims 23 to 26.

28. A computer-readable storage medium, wherein the computer-readable storage medium comprises instructions; and when the instructions are run by a processor, the resource determining method according to any one of claims 1 to 13, the resource determining method according to any one of claims 14 to 21, the resource determining method according to any one of claims 22 and 24 to 26, or the resource determining method according to any one of claims 23 to 26 is implemented.

29. A computer program product, wherein the computer program product comprises instructions; and when the instructions are run on a computer, the computer is caused to perform the resource determining method according to any one of claims 1 to 13, the resource determining method according to any one of claims 14 to 21, the resource determining method according to any one of claims 22 and 24 to 26, or the resource determining method according to any one of claims 23 to 26.

30. A communication system, comprising a first apparatus and a second apparatus, wherein the first apparatus is configured to perform the resource determining method according to any one of claims 1 to 13, and the second apparatus is configured to perform the resource determining method according to any one of claims 14 to 21; or the first apparatus is configured to perform the resource determining method according to any one of claims 22 and 24 to 26, and the second apparatus is configured to perform the resource determining method according to any one of claims 23 to 26.