

CLAIMS

1. A method for wireless communication, which is performed in a communication system using at least two beams, the method comprising:

determining, by a network device, transmission resources available for M beam groups, each beam group comprising at least one beam of the at least two beams and $M \geq 1$; and

sending, by the network device, configuration information to a first terminal device, the configuration information being used to indicate the transmission resource available for each beam group.

2. The method of claim 1, wherein sending, by the network device, the configuration information to the first terminal device comprises:

sending, by the network device, the configuration information to the first terminal device through dedicated signaling for the first terminal device; or

sending, by the network device, the configuration information to a plurality of terminal devices comprising the first terminal device through a Physical Broadcast Channel (PBCH) or a system broadcast message.

3. The method of claim 1 or 2, wherein the configuration information is used to indicate one-to-one mapping relationships between the M beam groups and M transmission resources.

4. The method of any one of claims 1-3, wherein sending, by the network device, the configuration information to the first terminal device comprises:

sending, by the network device, first configuration information to the first terminal device, the first configuration information being used to indicate configurations of Q transmission resources and one-to-one mapping relationships between the Q transmission resources and Q first identifiers (IDs), wherein $Q \geq M$ and the Q transmission resources comprise the transmission resources available for the M beam groups; and

sending, by the network device, second configuration information to the first

terminal device, the second configuration information indicating the first ID corresponding to the transmission resource available for each of the M beam groups.

5. The method of any one of claims 1-4, wherein the transmission resource comprises a time-domain transmission resource.

6. The method of claim 5, wherein a time-domain resource available for the communication system where the network device is located is divided into at least two time units in a time domain, and

the configuration information is used to indicate a position of a time unit in the transmission resource available for each beam group in the at least two time units.

7. The method of any one of claims 1-6, wherein the transmission resource comprises a frequency-domain transmission resource.

8. The method of any one of claims 1-7, wherein the transmission resource available for each beam group comprises no transmission resource reserved by the communication system, and the transmission resource reserved by the communication system is only used to transmit a specified service or a specified channel.

9. The method of any one of claims 1-8, wherein the transmission resource available for a first beam group of the M beam groups comprises at least one of: a first transmission resource for a control channel carrying the first beam group or a second transmission resource for a data channel carrying the first beam group.

10. A method for wireless communication, which is performed in a communication system using at least two beams, the method comprising:

receiving, by a first terminal device, configuration information sent by a network device, the configuration information being used to indicate a transmission resource available for each of M beam groups, and each beam group comprising at least one beam of the at least two beams and $M \leq 1$; and

determining, by the first terminal device, the transmission resource available for each of the M beam groups according to the configuration information.

11. The method of claim 10, wherein receiving, by the first terminal device, the configuration information sent by the network device comprises:

receiving, by the first terminal device, the configuration information sent by the network device through dedicated signaling for the first terminal device; or

receiving, by the first terminal device, the configuration information sent to a plurality of terminal devices comprising the first terminal device by the network device through a Physical Broadcast Channel (PBCH) or a system broadcast message.

12. The method of claim 10 or 11, wherein the configuration information is used to indicate one-to-one mapping relationships between the M beam groups and M transmission resources.

13. The method of any one of claims 10-12, wherein receiving, by the first terminal device, the configuration information sent by the network device comprises:

receiving, by the first terminal device, first configuration information sent by the network device, the first configuration information being used to indicate configurations of Q transmission resources and one-to-one mapping relationships between the Q transmission resources and Q first identifiers (IDs), wherein $Q \geq M$ and the Q transmission resources comprise transmission resources available for the M beam groups; and

receiving, by the first terminal device, second configuration information sent by the network device, the second configuration information comprising the first ID corresponding to the transmission resource available for each of the M beam groups.

14. The method of any one of claims 10-13, wherein the transmission resource comprises a time-domain transmission resource.

15. The method of claim 14, wherein a time-domain resource available for the communication system where the network device is located is divided into at least two time units in a time domain, and

the configuration information is used to indicate a position of a time unit in the transmission resource available for each beam group in the at least two time units.

16. The method of any one of claims 10-15, wherein the transmission resource comprises a frequency-domain transmission resource.

17. The method of any one of claims 10-16, wherein the transmission resource available for each beam group comprises no transmission resource reserved by the communication system, and the transmission resource reserved by the communication system is only used to transmit a specified service or a specified channel.

18. The method of any one of claims 10-17, wherein the transmission resource available for a first beam group of the M beam groups comprises at least one of: a first transmission resource for a control channel carrying the first beam group or a second transmission resource for a data channel carrying the first beam group.

19. A device for wireless communication, which is configured in a communication system using at least two beams, the device comprising:

a determination unit, configured to determine transmission resources available for M beam groups, each beam group comprising at least one beam of the at least two beams and $M \geq 1$; and

a communication unit, configured to send configuration information to a first terminal device, the configuration information being used to indicate the transmission resource available for each beam group.

20. The device of claim 19, wherein the communication unit is configured to send the configuration information to the first terminal device through dedicated signaling for the first terminal device; or

the communication unit is configured to send the configuration information to a plurality of terminal devices comprising the first terminal device through a Physical Broadcast Channel (PBCH) or a system broadcast message.

21. The device of claim 19 or 20, wherein the configuration information is used to indicate one-to-one mapping relationships between the M beam groups and M transmission resources.

22. The device of any one of claims 19-21, wherein the communication unit is configured to send first configuration information to the first terminal device, the first configuration information being used to indicate configurations of Q transmission resources and one-to-one mapping relationships between the Q transmission resources and Q first identifiers (IDs), wherein $Q \geq M$ and the Q transmission resources comprise the transmission resources available for the M beam groups; and

the communication unit is further configured to send second configuration information to the first terminal device, the second configuration information comprising the first ID corresponding to the transmission resource available for each of the M beam groups.

23. The device of any one of claims 19-22, wherein the transmission resource comprises a time-domain transmission resource.

24. The device of claim 23, wherein a time-domain resource available for the communication system where the device is located is divided into at least two time units in a time domain, and

the configuration information is used to indicate a position of a time unit in the transmission resource available for each beam group in the at least two time units.

25. The device of any one of claims 19-24, wherein the transmission resource comprises a frequency-domain transmission resource.

26. The device of any one of claims 19-25, wherein the transmission resource available for each beam group comprises no transmission resource reserved by the communication system, and the transmission resource reserved by the communication system is only used to transmit a specified service or a specified channel.

27. The device of any one of claims 19-26, wherein the transmission resource available for a first beam group of the M beam groups comprises at least one of: a first transmission resource for a control channel carrying the first beam group or a second transmission resource for a data channel carrying the first beam group.

28. A device for wireless communication, which is configured in a communication system using at least two beams, the device comprising:

a communication unit, configured to receive configuration information sent by a network device, the configuration information being used to indicate a transmission resource available for each of M beam groups, and each beam group comprising at least one beam of the at least two beams and $M \geq 1$; and

a determination unit, configured to determine the transmission resource available for each of the M beam groups according to the configuration information.

29. The device of claim 28, wherein the communication unit is configured to receive the configuration information sent by the network device through dedicated signaling for the device; or

the communication unit is configured to receive the configuration information sent to a plurality of terminal devices comprising the device by the network device through a Physical Broadcast Channel (PBCH) or a system broadcast message.

30. The device of claim 28 or 29, wherein the configuration information is used to indicate one-to-one mapping relationships between the M beam groups and M transmission resources.

31. The device of any one of claims 28-30, wherein the communication unit is configured to receive first configuration information sent by the network device, the first configuration information being used to indicate configurations of Q transmission resources and one-to-one mapping relationships between the Q transmission resources and Q first identifier (IDs), wherein $Q \geq M$ and the Q transmission resources comprise transmission resources available for the M beam groups; and

the communication unit is configured to receive second configuration information sent by the network device, the second configuration information comprising the first ID corresponding to the transmission resource available for each of the M beam groups.

32. The device of any one of claims 28-31, wherein the transmission resource comprises a time-domain transmission resource.

33. The device of claim 32, wherein a time-domain resource available for the communication system where the network device is located is divided into at least two time units in a time domain, and

the configuration information is used to indicate a position of a time unit in the transmission resource available for each beam group in the at least two time units.

34. The device of any one of claims 28-33, wherein the transmission resource comprises a frequency-domain transmission resource.

35. The device of any one of claims 28-34, wherein the transmission resource available for each beam group comprises no transmission resource reserved by the communication system, and the transmission resource reserved by the communication system is only used to transmit a specified service or a specified channel.

36. The device of any one of claims 28-35, wherein the transmission resource available for a first beam group of the M beam groups comprises at least one of: a first transmission resource for a control channel carrying the first beam group or a second transmission resource for a data channel carrying the first beam group.