

CLAIMS

1. A wireless communication method, comprising:

5 determining, by a network device, a first uplink carrier, wherein the first uplink carrier is one of a plurality of uplink carriers that can be used for a terminal device; and

sending, by the network device, first information to the terminal device, wherein the first information indicates that the terminal device uses or can use the first uplink carrier to perform uplink transmission or processes the first uplink carrier.

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

sending, by the network device, the first information to a single terminal device by using high layer signaling.

15 3. The method according to any one of claims 1 to 2, wherein the first information indicates that the terminal device uses the first uplink carrier to perform uplink transmission; and

the method further comprises:

sending, by the network device, second information to the terminal device, wherein the second information is used to activate or configure the first uplink carrier for the terminal device.

20 4. The method according to claim 3, wherein the first information is carried in downlink control information DCI.

5. The method according to claim 3 or 4, further comprising:

determining, by the network device, a second uplink carrier in the plurality of uplink carriers that can be used for the terminal device; and

25 sending, by the network device, third information to the terminal device, wherein the third information indicates that the terminal device uses the second uplink carrier to

perform uplink transmission, wherein

the first information and the third information are sent respectively in different scheduling processes of performing scheduling for the terminal device after the first uplink carrier is activated or configured.

5 6. A wireless communication method, comprising:

receiving, by a terminal device, first information sent by a network device, wherein the first information indicates that the terminal device uses or can use a first uplink carrier to perform uplink transmission or processes a first uplink carrier, and the first uplink carrier is one of a plurality of uplink carriers that can be used for the terminal device; and

10 based on the first information, using or selecting to use the first uplink carrier to perform uplink transmission or processing the first uplink carrier.

7. The method according to claim 6, wherein the receiving, by a terminal device, first information sent by a network device comprises:

15 receiving, by the terminal device, the first information sent by the network device by using high layer signaling.

8. The method according to any one of claims 6 to 7, wherein the first information indicates that the terminal device uses the first uplink carrier to perform uplink transmission; and

the method further comprises:

20 receiving, by the terminal device, second information sent by the network device, wherein the second information is used to activate or configure the first uplink carrier for the terminal device; and

activating or configuring, by the terminal device, the first uplink carrier.

25 9. The method according to claim 8, wherein the first information is carried in downlink control information DCI.

10. The method according to claim 8 or 9, further comprising:

receiving, by the terminal device, third information sent by the network device, wherein the third information indicates that the terminal device uses a second uplink carrier to perform uplink transmission, and the second uplink carrier is a link carrier other than the first uplink carrier of the plurality of uplink carriers; and

5 using, by the network device based on the third information, the second uplink carrier to perform uplink transmission, wherein

the first information and the third information are transmitted respectively in different scheduling processes of performing scheduling for the terminal device after the first uplink carrier is activated or configured.

10 11. The method according to any one of claims 8 to 10, wherein the uplink transmission is PUCCH transmission or PUSCH transmission.

12. The method according to any one of claims 6 to 10, wherein the first information is carried in information about a sounding reference signal SRS; and

15 the first information indicates that the terminal device uses the first uplink carrier to transmit the SRS.

13. The method according to claim 12, wherein the first information is carried in SRS configuration information for semi-statically configuring the SRS; or

the first information is carried in a trigger message for dynamically triggering the SRS.

20 14. The method according to any one of claims 6 to 11, wherein the first information is carried in a command used for adjusting timing or is carried in transmission of a command used for adjusting timing, and the first information is used to indicate adjustment of timing for the first uplink carrier.

15. The method according to claim 14, wherein the first information is carried in a field comprised in the command used for adjusting timing; or

25 the first information is indicated by processing information of a physical layer channel used to carry the command used for adjusting timing.

16. The method according to any one of claims 6 to 15, wherein the plurality of uplink

carriers that can be used for the terminal device respectively belong to a plurality of different frequency bands.

17. The method according to claim 16, wherein a frequency band to which the first uplink carrier belongs is lower than frequency bands to which other uplink carriers belong.

5 18. A network device, comprising a processing unit and a communications unit, wherein

the processing unit is configured to determine a first uplink carrier, wherein the first uplink carrier is one of a plurality of uplink carriers that can be used for a terminal device; and

10 the communications unit is configured to send first information to the terminal device, wherein the first information indicates that the terminal device uses or can use the first uplink carrier to perform uplink transmission or processes the first uplink carrier.

19. The network device according to claim 18, wherein the first information is carried in a command used for adjusting timing or is carried in transmission of a command used for
15 adjusting timing, and the first information is used to indicate adjustment of timing for the first uplink carrier.

20. The network device according to claim 19, wherein the first information is carried in a field comprised in the command used for adjusting timing; or

the first information is indicated by processing information of a physical layer channel
20 used to carry the command used for adjusting timing.

21. A terminal device, comprising a communications unit and a processing unit, wherein

the communications unit is configured to receive first information sent by a network device, wherein the first information indicates that the terminal device uses or can use a first
25 uplink carrier to perform uplink transmission or processes a first uplink carrier, and the first uplink carrier is one of a plurality of uplink carriers that can be used for the terminal device; and

the processing unit is configured to: based on the first information, use or select to use the first uplink carrier to perform uplink transmission or process the first uplink carrier.

22. The terminal device according to claim 21, wherein the communications unit is further configured to:

5 receive the first information sent by the network device by using high layer signaling.

23. The terminal device according to any one of claims 21 to 22, wherein the first information indicates that the terminal device uses the first uplink carrier to perform uplink transmission;

the communications unit is further configured to receive second information sent by the network device, wherein the second information is used to activate or configure the first uplink carrier for the terminal device; and

the processing unit is further configured to activate or configure the first uplink carrier.

24. The terminal device according to claim 23, wherein the first information is carried in downlink control information DCI.

15 25. The terminal device according to claim 23 or 24, wherein the terminal device further comprises:

the communications unit is further configured to receive third information sent by the network device, wherein the third information indicates that the terminal device uses a second uplink carrier to perform uplink transmission, and the second uplink carrier is a link carrier other than the first uplink carrier of the plurality of uplink carriers; and

the processing unit is further configured to use, based on the third information, the second uplink carrier to perform uplink transmission, wherein

the first information and the third information are transmitted respectively in different scheduling processes of performing scheduling for the terminal device after the first uplink carrier is activated or configured.

26. The terminal device according to any one of claims 23 to 25, wherein the uplink transmission is PUCCH transmission or PUSCH transmission.

27. The terminal device according to any one of claims 21 to 25, wherein the first information is carried in information about a sounding reference signal SRS; and

the first information indicates that the terminal device uses the first uplink carrier to transmit the SRS.

5 28. The terminal device according to claim 27, wherein the first information is carried in SRS configuration information for semi-statically configuring the SRS; or

the first information is carried in a trigger message for dynamically triggering the SRS.

29. The terminal device according to claim 21 to 28, wherein the plurality of uplink carriers that can be used for the terminal device respectively belong to a plurality of different
10 frequency bands.

30. The terminal device according to claim 29, wherein a frequency band to which the first uplink carrier belongs is lower than frequency bands to which other uplink carriers belong.