CLAIMS

What is claimed is:

1. A communication method, the method being performed by a terminal device and comprising:

sending a first uplink signal to a network device on a first uplink carrier,

receiving first signaling from the network device, wherein

if the first signaling indicates to send a second uplink signal to the network device on the first uplink carrier, the terminal device sends the second uplink signal on the first uplink carrier without switching the operating frequency of a radio frequency link of a transmit antenna of the terminal device; and

if the first signaling indicates to send a second uplink signal to the network device on a second uplink carrier, and the first signaling further indicates the terminal device to switch the operating frequency of a radio frequency link of a transmit antenna of the terminal device to a second frequency, the terminal device switches the operating frequency of a radio frequency link of the transmit antenna of the terminal device to the second frequency, and sends the second uplink signal on the second uplink carrier.

2. The method according to claim 1, wherein

the second frequency corresponds to the first uplink carrier; or

the second frequency corresponds to a second uplink carrier, and the second uplink carrier is 3.5GHz or 1.8GHz.

3. The method according to claim 1 or 2, wherein the first uplink carrier is a new radio (NR) uplink carrier or a long tern evolution (LTE) uplink carrier; or

the second uplink carrier is a NR uplink carrier or an LTE uplink carrier; or

the first uplink carrier and the second uplink carrier correspond to uplink carriers of different cells.

4. The method according to claim 3, wherein the first signaling is downlink control information (DCI).

5. A communication method, the method being performed by a network device and comprising:

receiving a first uplink signal from a terminal device on a first uplink carrier,

sending first signaling to the terminal device, wherein

if the first signaling indicates to send a second uplink signal to the network device on the first uplink carrier, and the first signaling does not indicate the terminal device to switch the operating frequency of a radio frequency link of a transmit antenna of the terminal device, the network device receives the second uplink signal from the terminal device on the first uplink carrier; and

if the first signaling indicates to send a second uplink signal to the network device on a second uplink carrier, and the first signaling indicates the terminal device to switch the operating frequency of a radio frequency link of a transmit antenna of the terminal device to a second frequency, the network device receives the second uplink signal from the terminal device on the second uplink carrier.

6. The method according to claim 5, wherein

the second frequency corresponds to the first uplink carrier; or

the second frequency corresponds to a second uplink carrier and the second uplink carrier is 3.5GHz or 1.8GHz.

7. The method according to claim 5 or 6, wherein the first signaling is downlink control information (DCI).

8. A terminal device, comprising:

a transceiver, configured to send a first uplink signal to a network device on a first uplink carrier,

the transceiver, configured to receive first signaling from a network device, wherein

if the first signaling indicates to send a first uplink signal to the network device on the first uplink carrier, the terminal device sends the second uplink signal on the first uplink carrier without switching the operating frequency of a radio frequency link of a transmit antenna of the terminal device; and

if the first signaling indicates to send a second uplink signal to the network device on a second uplink carrier, and the first signaling indicates the terminal device to switch the operating frequency of a radio frequency link of a transmit antenna of the terminal device to a second frequency, the terminal device switches the operating frequency of a radio frequency link of the transmit antenna of the terminal device to the second frequency, and sends the second uplink signal on the second uplink carrier.

9. The device according to claim 8, wherein

the second frequency corresponds to the first uplink carrier; or

the second frequency corresponds to a second uplink carrier, and the second uplink carrier is 3.5GHz or 1.8GHz.

10. The device according to claim 8 or 9, wherein the first uplink carrier is a new radio (NR) uplink carrier or a long tern evolution (LTE) uplink carrier; or,

the second uplink carrier is a NR uplink carrier or an LTE uplink carrier; or

the first uplink carrier and the second uplink carrier correspond to uplink carriers of different cells.

11. The device according to any one of claims 8 to 10, wherein the first signaling is downlink control information (DCI).

12. A communication apparatus, wherein the communication apparatus comprises:

a communication interface; and

a processor, wherein when the processor executes computer program instructions, the communication apparatus is enabled to implement the method according to any one of claims 1 to 4 via the communication interface.

13. A communication apparatus, wherein the communication apparatus comprises:

a communication interface; and

a processor, wherein when the processor executes computer program instructions, the communication apparatus is enabled to implement the method according to any one of claims 5 to 7 via the communication interface.

14. A computer-readable storage medium, wherein the computer-readable storage medium stores instructions; and when the instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 4.

15 . A computer-readable storage medium, wherein the computer-readable storage medium stores instructions; and when the instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 5 to 7.