

WHAT IS CLAIMED IS:

1. A method for transmitting an uplink control channel, comprising:

sending (S210), by a network device, a downlink control channel to a terminal device on a first downlink frequency domain control area of a first downlink time domain scheduling unit, wherein the downlink control channel comprises first configuration information and second configuration information, the first configuration information is used to dynamically indicate at least one first uplink frequency domain control area used by the terminal device to send an uplink control channel to the network device, and the second configuration information comprises information about an offset of each first uplink frequency domain control area in at least one first uplink time domain scheduling unit with respect to the first downlink time domain scheduling unit; and

receiving (S220), by the network device, an uplink control channel sent by the terminal device on a first uplink frequency domain scheduling unit in a corresponding first uplink frequency domain control area of the at least one first uplink time domain scheduling unit, wherein a frequency domain position of the first uplink frequency domain scheduling unit in the first uplink frequency domain control area is determined according to the first downlink frequency domain control area.

2. A method for transmitting an uplink control channel, comprising:

receiving (S810), by a terminal device, a downlink control channel sent by a network device on a first downlink frequency domain control area of a first downlink time domain scheduling unit, wherein the downlink control channel comprises first configuration information and second configuration information, the first configuration information is used to dynamically indicate at least one first uplink frequency domain control area used by the terminal device to send an uplink control channel to the network device, and the second configuration information comprises information about an offset of each first uplink frequency domain control area in at least one first uplink time domain scheduling unit with respect to the first downlink time domain scheduling unit; and

sending (S820), by the terminal device, an uplink control channel to the network device on the first uplink frequency domain scheduling unit in a corresponding first uplink

frequency domain control area of the at least one first uplink time domain scheduling unit, wherein a frequency domain position of the first uplink frequency domain scheduling unit in the first uplink frequency domain control area is determined according to the first downlink frequency domain control area.

3. The method according to claim 2, wherein a position of the first uplink frequency domain scheduling unit in each of the first uplink frequency domain control areas is determined according to a frequency domain position of the first downlink frequency domain control area in the first downlink time domain scheduling unit.

4. The method according to any one of claims 2 to 3, wherein the second configuration information is used to indicate N first uplink time domain scheduling units, the first configuration information is used to indicate N first uplink frequency domain control areas, each of the first uplink frequency domain control areas is located in one of the first uplink time domain scheduling units, and any two first uplink frequency domain control areas are located in different first uplink time domain scheduling units.

5. The method according to claim 4, wherein frequency domain positions of any two first uplink frequency domain control areas in corresponding first uplink time domain scheduling units are the same.

6. The method according to any one of claims 2 to 5, further comprising:

receiving, by the terminal device, fourth configuration information sent by the network device, wherein the fourth configuration information is used to indicate a frequency domain range that the terminal device can use, and the at least one first uplink frequency domain control area is an uplink frequency domain control area within the frequency domain range.

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

receiving, by the terminal device, the fourth configuration information sent by the

network device through high layer signaling, the downlink control channel, a broadcast channel, or a system information block SIB.

8. A network device, comprising:

a sending module (910) configured to send a downlink control channel to a terminal device on a first downlink frequency domain control area of a first downlink time domain scheduling unit, wherein the downlink control channel comprises first configuration information and second configuration information, and the first configuration information is used to dynamically indicate at least one first uplink frequency domain control area used by the terminal device to send an uplink control channel to the network device, and the second configuration information comprises information about an offset of each first uplink frequency domain control area in at least one first uplink time domain scheduling unit with respect to the first downlink time domain scheduling unit; and

a receiving module (920) configured to receive an uplink control channel sent by the terminal device on a first uplink frequency domain scheduling unit in a corresponding first uplink frequency domain control area of the at least one first uplink time domain scheduling unit, wherein a frequency domain position of the first uplink frequency domain scheduling unit in the first uplink frequency domain control area is determined according to the first downlink frequency domain control area.

9. A terminal device, comprising:

a receiving module (1110) configured to receive a downlink control channel sent by a network device on a first downlink frequency domain control area of a first downlink time domain scheduling unit, wherein the downlink control channel comprises first configuration information and second configuration information, and the first configuration information is used to dynamically indicate at least one first uplink frequency domain control area used by the terminal device to send an uplink control channel to the network device, and the second configuration information comprises information about an offset of each first uplink frequency domain control area in at least one first uplink time domain scheduling unit with respect to the first downlink time domain scheduling unit; and

a sending module (1120) configured to send an uplink control channel to the network device on the first uplink frequency domain scheduling unit in a corresponding first uplink frequency domain control area of the at least one first uplink time domain scheduling unit, wherein a frequency domain position of the first uplink frequency domain scheduling unit in the first uplink frequency domain control area is determined according to the first downlink frequency domain control area.

10. The terminal device according to claim 9, wherein the receiving module (1110) is further configured to receive fourth configuration information sent by the network device, the fourth configuration information is used to indicate a frequency domain range that the terminal device can use, and the at least one first uplink frequency domain control area is an uplink frequency domain control area within the frequency domain range.

11. The terminal device according to claim 10, wherein the receiving module (1110) is specifically configured to:

receive the fourth configuration information sent by the network device through high layer signaling, the downlink control channel, a broadcast channel, or a system information block SIB.