CLAIMS

1. A method for uplink signal transmission, comprising:

receiving, by a terminal device, first information transmitted by a network device, wherein the first information is used for the terminal device to determine a beam or a beam group for transmitting one or more uplink signals to the network device; and

transmitting, by the terminal device, the uplink signals to the network device by using the beam or the beam group.

2. The method of claim 1, wherein the first information is configured to indicate a target sounding signal or a target sounding signal group in one or more sounding signals transmitted to the network device by the terminal device.

3. The method of claim 2, wherein one or more sounding signals comprise multiple sounding signals, and the first information is configured to indicate a target sounding signal or a target sounding signal group in the multiple sounding signals transmitted to the network device by the terminal device.

4. The method of claim 2 or 3, wherein transmitting, by the terminal device, the uplink signals to the network device by using the beam or the beam group comprises:

transmitting, by the terminal device, the uplink signals to the network device by using a beam or a beam group corresponding to the target sounding signal or the target sounding signal group.

5. The method of any one of claims 2-4, wherein the target sounding signal is at least one sounding signal in a predefined sounding signal group; and the first information is configured to indicate an index of the target sounding signal in the predefined sounding signal group.

6. The method of any one of claims 1-5, wherein the uplink signals comprise any one of uplink data, an uplink control signal, an uplink pilot signal, and an uplink random access signal.

7. A terminal device, comprising:

a receiving module, configured to receive first information transmitted by a network device, wherein the first information is used for the terminal device to determine a beam or a beam group for transmitting one or more uplink signals to the network device; and

a transmitting module, configured to transmit the uplink signals to the network device by using the beam or the beam group.

8. The terminal device of claim 7, wherein the first information is configured to indicate a target sounding signal or a target sounding signal group in one or more sounding signals transmitted to the network device by the terminal device.

9. The terminal device of claim 8, wherein one or more sounding signals comprise multiple sounding signals, and the first information is configured to indicate a target sounding signal or a target sounding signal group in the multiple sounding signals transmitted to the network device by the terminal device.

10. The terminal device of claim 8 or 9, wherein the transmitting module is configured to:

transmit the uplink signals to the network device by using a beam or a beam group corresponding to the target sounding signal or the target sounding signal group.

11. The terminal device of any one of claims 8-10, wherein the target sounding signal is at least one sounding signal in a predefined sounding signal group; and the first information is configured to indicate an index of the target sounding signal in the predefined sounding signal group.

12. The terminal device of claim 7, wherein the first information is configured to indicate a beam or a beam group used by the terminal device to transmit the uplink signals to the network device.

13. The terminal device of claim 12, wherein the beam is at least one beam in a predefined beam group; and the first information is configured to indicate an index of the beam in the predefined beam group.

14. The terminal device of claim 12, wherein the first information is bitmap information, and the bitmap information is configured to indicate that the beam is at least one beam in a predefined beam group.

15. The terminal device of claim 12, wherein the first information is configured to indicate an index of the beam group in predefined multiple beam groups.

16. The terminal device of any one of claims 7-15, further comprising:

a processing module, configured to perform beamforming on the uplink signals based on a beamforming weight corresponding to the beam or the beam group to obtain the beamformed uplink signals; and

wherein the transmitting module is configured to transmit the beamformed uplink signals to the network device.

17. The terminal device of any one of claims 7-16, wherein the transmitting module is configured to perform at least one of the following:

transmit the uplink signals to the network device by using the at least one beam in the beam group.

18. The terminal device of any one of claims 7-17, wherein the transmitting module is configured to:

transmit the uplink signals by using the beam or different beams in the beam group, wherein the uplink signals transmitted on the different beams are transmitted on different time frequency resources.

19. The terminal device of any one of claims 7-18, wherein the uplink signals comprise any one of uplink data, an uplink control signal, an uplink pilot signal, and an uplink random access signal.

20. The terminal device of claim 19, wherein the uplink signals comprise the uplink data; a first beam in the target beam group is used for first-time transmission of the uplink data; and beams in the target beam group other than the first beam are used for possible Hybrid Automatic Repeat Request, HARQ, retransmission of the uplink data.