

Claims

1. A method for uplink transmission, comprising:

receiving, by a terminal device, indication information sent by a network device, the indication information being used for indicating a beam corresponding to at least one uplink transmission channel of the terminal device, wherein a beam corresponding to each uplink transmission channel is used for transmitting the each uplink transmission channel; and

performing, by the terminal device, uplink transmission according to the indication information.

2. The method according to claim 1, wherein the indication information comprises information of a beam corresponding to each uplink transmission channel in the at least one uplink transmission channel.

3. The method according to claim 2, wherein the information of the beam corresponding to the each uplink transmission channel comprises a beam identity of the beam corresponding to the each uplink transmission channel.

4. The method according to claim 2, wherein the information of the beam corresponding to the each uplink transmission channel comprises a beam index of the beam corresponding to the each uplink transmission channel, and the beam index of the beam corresponding to the each uplink transmission channel is used to indicate which beam in a pre-configured beam group is the beam corresponding to the each uplink transmission channel.

5. The method according to claim 4, wherein the beam group is a beam group configured by the network device to the terminal device through a high-level signaling.

6. The method according to any one of claims 1-5, wherein the uplink transmission channels of the terminal device comprise a first uplink transmission channel and a second uplink transmission channel, wherein the first uplink transmission channel is a physical uplink control channel, PUCCH, and the second uplink transmission channel is a physical uplink shared channel, PUSCH.

7. The method according to any one of claims 1-6, wherein the indication information is specific indication information for a terminal device, or the indication information is specific indication information for a group of terminal devices.

8. The method according to any one of claims 1-7, wherein the indication information is sent by the network device through downlink control information, DCI.

9. A method for uplink transmission, comprising:

generating, by a network device, indication information for indicating a beam

corresponding to at least one uplink transmission channel of a terminal device, wherein a beam corresponding to each uplink transmission channel is used for transmitting the each uplink transmission channel; and

sending, by the network device, the indication information to the terminal device.

5 10. The method according to claim 9, wherein the indication information comprises information of a beam corresponding to each uplink transmission channel in the at least one uplink transmission channel.

10 11. The method according to claim 10, wherein the information of the beam corresponding to the each uplink transmission channel comprises a beam identity of the beam corresponding to the each uplink transmission channel.

15 12. The method according to claim 10, wherein the information of the beam corresponding to the each uplink transmission channel comprises a beam index of the beam corresponding to the each uplink transmission channel, and the beam index of the beam corresponding to the each uplink transmission channel is used to indicate which beam in a pre-configured beam group is the beam corresponding to the each uplink transmission channel.

13. The method according to claim 12, wherein the beam group is a beam group configured by the network device to the terminal device through a high-level signaling.

20 14. The method according to any one of claims 9-13, wherein the uplink transmission channels of the terminal device comprise a first uplink transmission channel and a second uplink transmission channel, wherein the first uplink transmission channel is a physical uplink control channel, PUCCH, and the second uplink transmission channel is a physical uplink shared channel, PUSCH.

25 15. The method according to any one of claims 9-14, wherein the indication information is specific indication information for a terminal device, or the indication information is specific indication information for a group of terminal devices;

or,

wherein the indication information is sent by the network device through downlink control information, DCI.

30 16. A terminal device, comprising:
a receiving unit used for receiving indication information sent by a network device, the indication information being used for indicating a beam corresponding to at least one uplink transmission channel of the terminal device, wherein a beam corresponding to each uplink transmission channel is used for transmitting the each uplink transmission channel; and

a transmission unit used for performing uplink transmission according to the indication

information.

17. The terminal device according to claim 16, wherein the indication information comprises information of a beam corresponding to each uplink transmission channel in the at least one uplink transmission channel.

5 18. The terminal device according to claim 17, wherein the information of the beam corresponding to the each uplink transmission channel comprises a beam identity of the beam corresponding to the each uplink transmission channel.

10 19. The terminal device according to claim 17, wherein the information of the beam corresponding to the each uplink transmission channel comprises a beam index of the beam corresponding to the each uplink transmission channel, and the beam index of the beam corresponding to the each uplink transmission channel is used to indicate which beam in a pre-configured beam group is the beam corresponding to the each uplink transmission channel.

20. The terminal device according to claim 19, wherein the beam group is a beam group configured by the network device to the terminal device through a high-level signaling.

15 21. The terminal device according to any one of claims 16-20, wherein the uplink transmission channels of the terminal device comprise a first uplink transmission channel and a second uplink transmission channel, wherein the first uplink transmission channel is a physical uplink control channel, PUCCH, and the second uplink transmission channel is a physical uplink shared channel, PUSCH.

20 22. The terminal device according to any one of claims 16-21, wherein the indication information is specific indication information for a terminal device, or the indication information is specific indication information for a group of terminal devices.

23. The terminal device according to any one of claims 16-22, wherein the indication information is sent by the network device through downlink control information, DCI.

25 24. A network device, comprising:

a generating unit used for generating indication information for indicating a beam corresponding to at least one uplink transmission channel of a terminal device, wherein a beam corresponding to each uplink transmission channel is used for transmitting the each uplink transmission channel; and

30 a sending unit, used for sending the indication information to the terminal device.

25. The network device according to claim 24, wherein the indication information comprises information of a beam corresponding to each uplink transmission channel in the at least one uplink transmission channel.

26. The network device according to claim 25, wherein the information of the beam

corresponding to the each uplink transmission channel comprises a beam identity of the beam corresponding to the each uplink transmission channel.

27. The network device according to claim 25, wherein the information of the beam corresponding to the each uplink transmission channel comprises a beam index of the beam
5 corresponding to the each uplink transmission channel, and the beam index of the beam corresponding to the each uplink transmission channel is used to indicate which beam in a pre-configured beam group is the beam corresponding to the each uplink transmission channel.

28. The network device according to claim 27, wherein the beam group is a beam group configured by the network device to the terminal device through a high-level signaling.

10 29. The network device according to any one of claims 24-28, wherein the uplink transmission channels of the terminal device comprise a first uplink transmission channel and a second uplink transmission channel, wherein the first uplink transmission channel is a physical uplink control channel, PUCCH, and the second uplink transmission channel is a physical uplink shared channel, PUSCH.

15 30. The network device according to any one of claims 24-29, wherein the indication information is specific indication information for a terminal device, or the indication information is specific indication information for a group of terminal devices;

or,

20 wherein the indication information is sent by the network device through downlink control information, DCI.