

CLAIMS:

1. A method for information transmission, comprising:

receiving (S210), by a terminal device, first indication information sent by a network device; and

receiving (S220), by the terminal device, first downlink control information sent by the network device, according to the first indication information,

wherein receiving (S220), by the terminal device, first downlink control information sent by the network device, according to the first indication information comprises:

determining, by the terminal device, a first resource area for transmitting downlink control information according to the first indication information; and

receiving, by the terminal device, first downlink control information by detecting the first downlink control information sent by the network device on the first resource area,

wherein determining, by the terminal device, a first resource area for transmitting downlink control information according to the first indication information comprises:

determining, by the terminal device, a first transmission mode from a plurality of transmission modes according to the first indication information, wherein a resource area corresponding to each of the plurality of transmission modes is different; and

determining, by the terminal device, the resource area corresponding to the first transmission mode as the first resource area,

wherein starting resource areas corresponding to respective transmission modes are different;

the first indication information is used to indicate a starting resource area in the first resource area; and

determining, by the terminal device, the first transmission mode from the plurality of transmission modes according to the first indication information comprises:

determining, by the terminal device, the first transmission mode corresponding to the starting resource area in the first resource area, from the plurality of transmission modes, according to the first indication information.

2. The method according to claim 1, wherein the first indication information is used to indicate the first resource area.

3. The method according to claim 1, wherein the first indication information is directed to the terminal device, or a plurality of terminal devices including the terminal device.

4. The method according to claim 1, wherein the first indication information is configured to indicate an initial resource area of the first resource area.

5. The method according to claim 1, wherein the first indication information is used to indicate the first transmission mode.

6. The method according to any one of claims 1 to 5, wherein the plurality of transmission modes are previously configured, or the plurality of transmission modes are configured through configuration information.

7. The method according to any one of claims 1 to 6, wherein receiving, by the terminal device, first downlink control information by detecting the first downlink control information sent by the network device on the resource area comprises:

after the first indication information is received by the terminal device, and before second indication information is received by the terminal device,

receiving, by the terminal device, the first downlink control information by detecting the first downlink control information on the first resource area in each scheduling unit of at least one scheduling unit;

wherein the second indication information is used to indicate that the first resource area has changed or the second indication information is used to indicate a change result of the first resource area.

8. The method according to claim 1, wherein the first indication information is used to indicate that a first resource area for transmitting downlink control information has changed.

9. The method according to claim 8, wherein receiving, by the terminal device, first downlink control information sent by the network device, according to the first indication information, comprises:

receiving, by the terminal device, the first downlink control information by detecting the first downlink control information on all or part of second resource area for transmitting downlink control information configured previously or in configuration information, according to the first indication information.

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

determining, by the terminal device, the first resource area for transmitting downlink control information by detecting downlink control information on all or part of the second resource area.

11. The method according to claim 10, wherein determining, by the terminal device, the first resource area for transmitting downlink control information by detecting downlink control information on all or part of the second resource area comprises:

determining, by the terminal device, the first resource area by detecting downlink control information on all or part of the second resource area in an initial scheduling unit after the first indication information is received.

12. The method according to any one of claims 9-11, wherein the configuration information is carried in system information or in dedicated signaling.

13. A terminal device, comprising:

a receiving unit (310) configured to:

receive first indication information sent by a network device; and

receive first downlink control information sent by the network device, according to the

first indication information,

wherein the terminal device further comprises:

a processing unit configured to determine a first resource area for transmitting downlink control information, according to the first indication information;

wherein the receiving unit (310) is specifically configured to receive first downlink control information by detecting the first downlink control information sent by the network device on the first resource area,

wherein the processing unit is specifically configured to:

determine a first transmission mode from a plurality of transmission modes according to the first indication information, wherein a resource area corresponding to each of the plurality of transmission modes is different; and

determine the resource area corresponding to the first transmission mode as the first resource area, and

wherein starting resource areas corresponding to respective transmission modes are different;

the first indication information is used to indicate a starting resource area in the first resource area; and;

the processing unit is specifically configured to determine the first transmission mode corresponding to the starting resource area in the first resource area, from the plurality of transmission modes, according to the first indication information.

14. The terminal device according to claim 13, wherein the first indication information is used to indicate the first resource area.

15. The terminal device according to claim 13, wherein the first indication information is directed to the terminal device, or a plurality of terminal devices including the terminal device.

16. The terminal device according to claim 13, wherein the first indication information is configured to indicate an initial resource area of the first resource area.

17. The terminal device according to claim 13, wherein the first indication information is used to indicate the first transmission mode.

18. The terminal device according to any one of claims 13 to 17, wherein the plurality of transmission modes are previously configured, or the plurality of transmission modes are configured through configuration information.

19. The terminal device according to any one of claims 13 to 18, wherein the receiving unit (310) is specifically configured to:

after the first indication information is received by the receiving unit (310), and before second indication information is received by the receiving unit (310),

receive the first downlink control information by detecting the first downlink control information on the first resource area in each scheduling unit of at least one scheduling unit;

wherein the second indication information is used to indicate that the first resource area has changed or the second indication information is used to indicate a change result of the first resource area.

20. The terminal device according to claim 13, wherein the first indication information is used to indicate that a first resource area for transmitting downlink control information has changed.

21. The terminal device according to claim 20, wherein the receiving unit (310) is specifically configured to receive the first downlink control information by detecting the first downlink control information on all or part of second resource area for transmitting downlink control information configured previously or in configuration information, according to the first indication information.

22. The terminal device according to claim 21, further comprising:

a processing unit configured to determine the first resource area for transmitting downlink control information by detecting downlink control information on all or part of the second resource area.

23. The terminal device according to claim 22, wherein the processing unit is specifically configured to: determine the first resource area by detecting downlink control information on all or part of the second resource area in an initial scheduling unit after the first indication information is received.

24. The terminal device according to any one of claims 21-23, wherein the configuration information is carried in system information or in dedicated signaling.

25. A method for transmitting information, comprising:

sending (S210), by a network device, first indication information according to a first resource area for transmitting downlink control information, wherein the first indication information is used by a terminal device to receive first downlink control information sent by the network device; and

sending (S220), by a network device, downlink control information on the first resource area for transmitting downlink control information,

wherein the first indication information is used by the terminal device to determine the first resource area for transmitting downlink control information, so that the terminal device receives the first downlink control information by detecting the first downlink control information on the first resource area for transmitting downlink control information, and

wherein the first indication information is used to indicate a first transmission mode, so that the terminal device determines, according to the first indication information, a resource area corresponding to a first transmission mode determined from a plurality of transmission modes as the first resource area for transmitting downlink control information, wherein a resource area corresponding to each of the plurality of transmission modes is different,

wherein starting resource areas corresponding to respective transmission modes are different;

the first indication information is used to indicate a starting resource area in the first resource area; and

wherein the first indication information is used by the terminal device to determine the first transmission mode corresponding to the starting resource area in the first resource area, from the plurality of transmission modes, according to the first indication information.

26. The method according to claim 25, wherein the first indication information is used to indicate the first resource area.

27. The method according to claim 25, wherein the first indication information is configured to indicate an initial resource area of the first resource area.

28. The method according to claim 25, wherein the first indication information is used to indicate the first transmission mode.

29. The method according to any one of claims 25 to 28, wherein the plurality of transmission modes are previously configured, or the plurality of transmission modes are configured through configuration information.

30. A network device, comprising:

a sending unit (410) configured to:

send first indication information according to a first resource area for transmitting downlink control information, wherein the first indication information is used by a terminal device to receive first downlink control information sent by the receiving unit; and

send downlink control information on the first resource area for transmitting downlink control information,

wherein the first indication information is used by the terminal device to determine the first resource area for transmitting downlink control information, so that the terminal device

receives the first downlink control information by detecting the first downlink control information on the first resource area for transmitting downlink control information, and

wherein the first indication information is used to indicate a first transmission mode, so that the terminal device determines, according to the first indication information, a resource area corresponding to a first transmission mode determined from a plurality of transmission modes as the first resource area for transmitting downlink control information, wherein a resource area corresponding to each of the plurality of transmission modes is different,

wherein starting resource areas corresponding to respective transmission modes are different;

the first indication information is used to indicate a starting resource area in the first resource area; and

wherein the first indication information is used by the terminal device to determine the first transmission mode corresponding to the starting resource area in the first resource area, from the plurality of transmission modes, according to the first indication information.

31. The network device according to claim 30, wherein the first indication information is used to indicate the first resource area.

32. The network device according to claim 30, wherein the first indication information is configured to indicate an initial resource area of the first resource area.

33. The network device according to claim 30, wherein the first indication information is used to indicate the first transmission mode.

34. The network device according to any one of claims 30 to 33, wherein the plurality of transmission modes are previously configured, or the plurality of transmission modes are configured through configuration information.