

WHAT IS CLAIMED IS:

1. A method for determining a default beam, performed by a user equipment, comprising:
determining a default beam corresponding to a first control resource set (CORESET) for sending downlink control information (DCI) based on a specified rule, wherein a maximum number of transmission configuration indication (TCI) states supported by the first CORESET is equal to 2, the two TCI states supported by the first CORESET are both configured for transmission of a physical downlink control channel (PDCCH) in the first CORESET, the default beam is configured for transmission of at least one of a physical downlink shared channel (PDSCH) a physical uplink shared channel (PUSCH) and reference signals, and the default beam comprises one or two TCI states supported by the first CORESET.

2. The method of claim 1, wherein determining the default beam corresponding to the first CORESET based on the specified rule comprises:

receiving a medium access control control element (MAC CE), wherein the MAC CE is configured to activate a first beam corresponding to the first CORESET; and

determining the first beam as the default beam corresponding to the first CORESET.

3. The method of claim 2, wherein determining the first beam as the default beam corresponding to the first CORESET comprises:

a number of the first beams being two, and the two first beams being determined as the default beams corresponding to the first CORESET; or

the number of the first beams being two, and one of the two first beams corresponding to a specified transmission and reception point (TRP) being determined as the default beam corresponding to the first CORESET.

4. The method of claim 1, wherein determining the default beam corresponding to the first CORESET based on the specified rule comprises:

receiving first downlink control information (DCI), wherein the first DCI is configured to indicate a second beam corresponding to the first CORESET; and

determining the second beam as the default beam corresponding to the first CORESET.

5. The method of claim 4, wherein determining the second beam as the default beam corresponding to the first CORESET comprises one of:

determining at least one of the second beams as the default beam corresponding to the first CORESET; or

determining a second beam corresponding to a code point with a minimum value configured to indicate one second beam in the first DCI as the default beam corresponding to the first CORESET; or

determining two second beams corresponding to a code point with a minimum value configured to indicate the two second beams in the first DCI as the default beams corresponding to the first CORESET; or

determining one second beam corresponding to a specified TRP in two second beams as the default beam corresponding to the first CORESET, the two second beams corresponding to a code point with a minimum value configured to indicate the two second beams in the first DCI.

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

the MAC CE being a MAC CE indicating a dedicated beam of the first CORESET; or

the MAC CE being a MAC CE indicating a common beam of a group including the first CORESET.

7. The method of claim 1, wherein determining the default beam corresponding to the first CORESET based on the specified rule comprises:

determining a third beam corresponding to a second CORESET with a minimum index value in a latest time unit during which a physical downlink control channel (PDCCH) is to be detected; and

determining the third beam as the default beam.

8. The method of any one of claims 1 to 7, further comprising:

receiving a configuration signaling sent by a network device, wherein the configuration signaling is configured to configure at least one CORESET, and one or more beams corresponding to each CORESET in the at least one CORESET,

wherein the configuration signaling comprises at least one of a MAC CE or a DCI.

9. The method of claim 1, further comprising:

transmitting at least one of data or reference signals corresponding to the first CORESET based on the default beam corresponding to the first CORESET.

10. The method of claim 9, wherein the data corresponding to the first CORESET comprises at least one of:

data carried on a physical downlink shared channel (PDSCH) scheduled by a second DCI sent on a PDCCH in the first CORESET; or

data carried on a physical uplink shared channel (PUSCH) scheduled by a third DCI sent on a PDCCH in the first CORESET.

11. A method for determining a default beam, performed by a network device, comprising:

determining a default beam corresponding to a first control resource set (CORESET) for sending downlink control information (DCI) based on a specified rule, wherein a maximum

number of transmission configuration indication (TCI) states supported by the first CORESET is equal to 2, the two TCI states supported by the first CORESET are both configured for transmission of a physical downlink control channel, PDCCH, in the first CORESET, the default beam is configured for transmission of at least one of a physical downlink shared channel, PDSCH, a physical uplink shared channel, PUSCH, and reference signals, and the default beam comprises one or two TCI states supported by the first CORESET.

12. The method of claim 11, wherein determining the default beam corresponding to the first CORESET based on the specified rule comprises:

sending a medium access control control element (MAC CE), wherein the MAC CE is configured to activate a first beam corresponding to the first CORESET; and

determining the first beam as the default beam corresponding to the first CORESET.

13. The method of claim 11, wherein determining the default beam corresponding to the first CORESET based on the specified rule comprises:

sending first downlink control information (DCI), wherein the first DCI is configured to indicate a second beam corresponding to the first CORESET; and

determining the second beam as the default beam corresponding to the first CORESET.

14. The method of any one of claims 11 to 13, further comprising:

sending a configuration signaling to a user equipment, wherein the configuration signaling is configured to configure at least one CORESET and one or more beams corresponding to each CORESET in the at least one CORESET.

15. A user equipment, comprising:

a transceiver;

a memory; and

a processor connected to the transceiver and the memory, respectively, and configured to:

determine a default beam corresponding to a first control resource set (CORESET) for sending downlink control information (DCI) based on a specified rule, wherein a maximum number of transmission configuration indication (TCI) states supported by the first CORESET is equal to 2, the two TCI states supported by the first CORESET are both configured for transmission of a physical downlink control channel (PDCCH) in the first CORESET, the default beam is configured for transmission of at least one of a physical downlink shared channel (PDSCH) a physical uplink shared channel (PUSCH) and reference signals, and the default beam comprises one or two TCI states supported by the first CORESET.

16. The user equipment of claim 15, wherein the processor is further configured to:

receive a medium access control control element (MAC CE), wherein the MAC CE is

configured to activate a first beam corresponding to the first CORESET; and

determine the first beam as the default beam corresponding to the first CORESET.

17. The user equipment of claim 16, wherein:

a number of the first beams is two, and the two first beams are determined as the default beams corresponding to the first CORESET; or

the number of the first beams is two, and one of the two first beams corresponding to a specified transmission and reception point (TRP) is determined as the default beam corresponding to the first CORESET.

18. A network device, comprising:

a transceiver;

a memory; and

a processor connected to the transceiver and the memory, respectively, and configured to perform the method according to any one of claims 11 to 14.

19. A computer storage medium having stored therein computer-executable instructions that, when executed by a processor, cause the processor to perform the method according to any one of claims 1 to 10.

20. A non-transitory computer storage medium having stored therein computer-executable instructions that, when executed by a processor, cause the processor to perform the method according to any one of claims 11 to 14.