CLAIMS

1. A communication method, comprising:

sending first sidelink control information SCI, wherein the first SCI indicates to send M channel state information reference signals CSI-RSs, and M is a positive integer greater than or equal to 2; and

sending the M CSI-RSs, wherein

the M CSI-RSs belong to a same time unit, the M CSI-RSs comprise a first CSI-RS and a second CSI-RS, the first CSI-RS is sent by using a first beam, the second CSI-RS is sent by using a second beam, and the first beam and the second beam correspond to different spatial domain parameters.

2. The communication method according to claim 1, wherein

a beam for sending the first SCI is the same as a beam for sending a third CSI-RS, the third CSI-RS and the first SCI belong to a same time unit, and the third CSI-RS is a 1st CSI-RS in the M CSI-RSs in time domain.

3. The communication method according to claim 1 or 2, wherein the sending the M CSI-RSs comprises:

sending the M CSI-RSs in a first time unit by using N different beams, wherein N is a positive integer greater than or equal to 2.

4. The communication method according to claim 3, wherein the sending the M CSI-RSs in a first time unit by using N different beams comprises:

a time interval between a third beam and a fourth beam in the N different beams is greater than or equal to first time, and the first time is indicated by a network device, predefined, or preconfigured.

5. The communication method according to claim 4, wherein the sending the M CSI-RSs in a first time unit by using N different beams comprises:

if a quantity of symbols occupied by one of the N beams is Q, and a quantity of symbols in the first time is P, $N*Q+(N-1)*P \leq L$, wherein L is a quantity of symbols in the first time unit, and Q, P, and L are all positive integers.

6. The communication method according to any one of claims 1 to 5, wherein

a time domain position of a fourth CSI-RS in the M CSI-RSs is determined based on a start position and a first offset, wherein

the start position is a 1st symbol occupied by a signal sent by using a fifth beam, and the fifth beam is a beam for sending the fourth CSI-RS; or

the start position is a 1st symbol in the first time unit for sending the M CSI-RSs, and all of the M CSI-RSs correspond to different offsets.

7. The communication method according to any one of claims 3 to 6, wherein the sending the M CSI-RSs in a first time unit by using N different beams comprises:

a sixth beam in the N beams is used to send a fifth CSI-RS, and identifier information of the sixth beam is determined based on a time domain position of the fifth CSI-RS or the identifier information of the sixth beam is determined based on a resource identifier of the fifth CSI-RS.

8. The communication method according to any one of claims 3 to 7, wherein the sending the M CSI-RSs in a first time unit by using N different beams comprises:

a 1st symbol position of a seventh beam in the N different beams is indicated by the network device, predefined, or preconfigured;

an end position of the seventh beam is determined based on a 1st symbol position of a 1st beam after the seventh beam and the first time; and

a 1st symbol occupied by the seventh beam is used for automatic gain control or receive power adjustment.

9. The communication method according to any one of claims 3 to 7, wherein the sending the M CSI-RSs in a first time unit by using N different beams comprises:

a 1st symbol occupied by a seventh beam in the N different beams is an automatic gain control AGC symbol;

a position of the automatic gain control AGC symbol is indicated by the network device, predefined, or preconfigured; and

an end position of the seventh beam is determined based on a position of a 1st AGC symbol after the seventh beam and the first time.

10. The communication method according to any one of claims 1 to 9, wherein

the first SCI further indicates that the M CSI-RSs are used for beam management.

11. The communication method according to claim 10, wherein

a first indicator field of the first SCI indicates that the M CSI-RSs are used for the beam management; or

format information of the first SCI indicates that the M CSI-RSs are used for the beam management.

12. The communication method according to any one of claims 1 to 11, wherein

second SCI indicates configuration information of the M CSI-RSs, and the second SCI is carried in first-stage SCI signaling or second-stage SCI signaling.

13. The communication method according to any one of claims 1 to 12, wherein

the configuration information of the M CSI-RSs is obtained, wherein

the configuration information of the M CSI-RSs is indicated by the network device; or

the configuration information of the M CSI-RSs is predefined or preconfigured.

14. The communication method according to any one of claims 1 to 13, wherein

the first SCI is carried in first-stage SCI signaling or second-stage SCI signaling.

15. A communication method, comprising:

receiving first sidelink control information SCI, wherein the first SCI indicates to send M channel state information reference signals CSI-RSs, and M is a positive integer greater than or equal to 2; and

receiving the M CSI-RSs, wherein

the M CSI-RSs belong to a same time unit, the M CSI-RSs comprise a first CSI-RS and a second CSI-RS, the first CSI-RS is sent by using a first beam, the second CSI-RS is sent by using a second beam, and the first beam and the second beam correspond to different spatial domain parameters.

16. The communication method according to claim 15, wherein

a beam for sending the first SCI is the same as a beam for sending a third CSI-RS, the third CSI-RS and the first SCI belong to a same time unit, and the third CSI-RS is a 1st CSI-RS in the M CSI-RSs in time domain.

17. The communication method according to claim 15 or 16, wherein the receiving the M CSI-RSs comprises:

receiving the M CSI-RSs in a first time unit by using a same beam.

18. The communication method according to any one of claims 15 to 17, wherein

the M CSI-RSs belong to the first time unit, beams for sending the M CSI-RSs are N different beams, and N is a positive integer greater than or equal to 2.

19. The communication method according to claim 18, wherein that beams for sending the M CSI-RSs are N different

beams comprises:

a time interval between a third beam and a fourth beam in the N different beams is greater than or equal to first time, and the first time is indicated by a network device, predefined, or preconfigured.

20. A computer-readable storage medium, comprising instructions, wherein when the instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 14 or the method according to any one of claims 15 to 19.

21. A computer program product, comprising instructions, wherein when the instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 14 or the method according to any one of claims 15 to 19.

22. A chip, comprising a processor and a communication interface, wherein the processor is configured to read instructions or a computer program, to perform the method according to any one of claims 1 to 14 or the method according to any one of claims 15 to 19.

23. A communication apparatus, comprising at least one processor and an interface circuit, wherein the interface circuit is configured to input or output instructions and/or data for the at least one processor, and when the at least one processor executes the instructions, the apparatus implements the method according to any one of claims 1 to 19.