

What we claim is:

1. A method for calculating a Channel Quality Indicator (CQI), comprising:

determining, by a terminal device, K ports for a rank, wherein K is equal to a value of the rank, the value of the rank belongs to 1 to N, N is a number of ports in a channel state information-reference signal (CSI-RS) resource, and K and N are positive integers;

calculating, by the terminal device, the CQI for the rank based on the K ports; and

reporting, by the terminal device, the CQI and the rank to a network device.

2. The method according to claim 1, wherein the determining, by a terminal device, K ports for a rank comprises:

selecting, by the terminal device, K ports from the N ports according to the rank.

3. The method according to claim 2, wherein port numbers of the K ports are 0 to K-1.

4. The method according to claim 1, wherein before the determining, by a terminal device, K ports for a rank, the method further comprises:

receiving, by the terminal device, first configuration information sent by the network device, wherein the first configuration information is used for indicating a sequence comprising the port information of the K ports; and

the determining, by a terminal device, K ports for a rank comprises:

determining, by the terminal device, the K ports in the N ports according to the first configuration information.

5. The method according to claim 4, wherein the first configuration information comprises a port configuration used for calculating the CQI, the port configuration comprises correspondences between a plurality of ranks and a plurality of port sets, and port sets corresponding to different ranks in the plurality of ranks comprise different quantities of ports; and

the determining, by the terminal device, the K ports in the N ports according to the first configuration information comprises:

determining, by the terminal device according to the port configuration and the rank in the plurality of ranks, a first port set corresponding to the rank in the plurality of ranks, wherein the first port set comprises the K ports.

6. The method according to claim 4, wherein the receiving, by the terminal device, first configuration information sent by the network device comprises:

receiving, by the terminal device, the first configuration information sent by the network device by using Radio Resource Control (RRC) signaling.

5 7. The method according to claim 5, wherein the method further comprises:

receiving, by the terminal device, update configuration information sent by the network device, wherein the update configuration information comprises a second port set corresponding to the rank in the plurality of ranks in the port configuration; and

10 updating, by the terminal device, the first port set corresponding to the rank in the plurality of ranks in the port configuration to the second port set.

8. The method according to claim 7, wherein the receiving, by the terminal device, update configuration information sent by the network device comprises:

receiving, by the terminal device, the update configuration information sent by the network device by using RRC signaling.

15 9. A terminal device, comprising:

a processor and a transceiver,

wherein the processor is, configured to determine K ports for a rank, wherein K is equal to a value of the rank, the value of the rank belongs to 1 to N, N is a number of ports in a channel state information-reference signal (CSI-RS) resource, and K and N are positive integers, and

20 calculate a Channel Quality Indicator (CQI) for the rank based on the K ports; and

the transceiver is configured to report the CQI and the rank to a network device.

10. The terminal device according to claim 9, wherein the processor is further configured to:

select K ports from the N ports according to the rank.

25 11. The terminal device according to claim 10, wherein port numbers of the K ports are 0 to K-1.

12. The terminal device according to claim 9, wherein the transceiver is further configured to:

receive first configuration information sent by the network device, wherein the first

configuration information is used for indicating a sequence comprising the port information of the K ports, and

the processor is configured to:

determine the K ports in the N ports according to the first configuration information.

5        13. The terminal device according to claim 12, wherein the first configuration information comprises a port configuration used for calculating the CQI, the port configuration comprises correspondences between a plurality of ranks and a plurality of port sets, and port sets corresponding to different ranks in the plurality of ranks comprise different quantities of ports; and

10       the processor is configured to:

determine, according to the port configuration and the rank in the plurality of ranks, a first port set corresponding to the rank in the plurality of ranks, wherein the first port set comprises the K ports.

14. The terminal device according to claim 12, wherein the transceiver is configured to:

15       receive the first configuration information sent by the network device by using Radio Resource Control (RRC) signaling.

15. The terminal device according to claim 13, wherein the transceiver is further configured to:

20       receive update configuration information sent by the network device, wherein the update configuration information comprises a second port set corresponding to the rank in the plurality of ranks in the port configuration, and

the processor is further configured to:

update the first port set corresponding to the rank in the plurality of ranks in the port configuration to the second port set.

25       16. The terminal device according to claim 15, wherein the transceiver is configured to:

receive the update configuration information sent by the network device by using RRC signaling.