

CLAIMS

1. A method for data transmission, comprising:
 - receiving at least two Demodulation Reference Signal (DMRS) port groups
 - 5 configured by a network device;
 - determining a target reference signal resource corresponding to each of the at least two DMRS port groups;
 - determining, according to the target reference signal resource, transmission parameters for data transmission on DMRS port group corresponding to the target
 - 10 reference signal resource; and
 - after determining the transmission parameters for the data transmission on each DMRS port group, performing the data transmission on the at least two DMRS port groups.
- 15 2. The method of claim 1, wherein receiving the at least two DMRS port groups configured by the network device comprises:
 - receiving the at least two DMRS port groups configured by the network device through high-layer signaling; or
 - receiving the at least two DMRS port groups indicated by the network device
 - 20 through Downlink Control Information (DCI) from a plurality of DMRS port groups, wherein the plurality of DMRS port groups are DMRS port groups pre-configured by the network device through high-layer signaling.
3. The method of any one of claims 1-2, wherein determining the target reference
- 25 signal resource corresponding to each of the at least two DMRS port groups comprises:
 - receiving, from the network device, resource indication information carried by the DCI used to schedule the data transmission on the at least two DMRS port groups, wherein the resource indication information is used to indicate the target reference
 - 30 signal resource corresponding to each DMRS port group; and
 - determining the target reference signal resource corresponding to each DMRS port group according to the resource indication information.

4. The method of any one of claims 1-3, wherein determining, according to the target reference signal resource, the transmission parameters for the data transmission on the DMRS port group corresponding to the target reference signal resource comprises:

acquiring precoding matrix indication information from the network device;

5 and

determining, according to a number of antenna ports in the target reference signal resource and the precoding matrix indication information, a precoding matrix for the data transmission on the DMRS port group corresponding to the target reference signal resource.

10

5. The method of any one of claims 1-4, wherein determining, according to the target reference signal resource, the transmission parameters for the data transmission on the DMRS port group corresponding to the target reference signal resource comprises:

determining a beam for transmitting or receiving a reference signal on the

15 target reference signal resource as a beam for the data transmission on the DMRS port group corresponding to the target reference signal resource.

6. The method of any one of claims 1-5, wherein determining, according to the target reference signal resource, the transmission parameters for the data transmission on the DMRS port group corresponding to the target reference signal resource comprises:

20

determining, according to power control parameters corresponding to the target reference signal resource, transmission power for the data transmission on the DMRS port group corresponding to the target reference signal resource.

7. The method of claim 6, wherein determining, according to the power control parameters corresponding to the target reference signal resource, the transmission power for the data transmission on the DMRS port group corresponding to the target reference signal resource comprises:

25

determining, according to second power control parameters, the transmission power for the data transmission on the DMRS port group corresponding to the target reference signal resource, wherein the second power control parameters are power control parameters pre-configured by the network device to be associated with the target reference signal resource or the indication information of the target reference

30

signal resource.

8. The method of any one of claims 6-7, wherein the power control parameters comprises at least one of an open loop power control parameter, a closed loop power control parameter or a path loss estimation value.

9. The method of any one of claims 1-8, wherein determining, according to the target reference signal resource, the transmission parameters for the data transmission on the DMRS port group corresponding to the target reference signal resource comprises:
determining a panel for transmitting or receiving the reference signal on the target reference signal resource as a panel for data transmission on the DMRS port group corresponding to the target reference signal resource.

10. The method of any one of claims 1-9, wherein the target reference signal resource is a Sounding Reference Signal (SRS) resource or a Channel State Information Reference Signal (CSI-RS) resource.

11. A terminal device, comprising:
a receiving unit, configured to receive at least two Demodulation Reference Signal (DMRS) port groups configured by a network device;
a processing unit, configured to determine a target reference signal resource corresponding to each of the at least two DMRS port groups,
the processing unit being further configured to determine, according to the target reference signal resource, transmission parameters for data transmission on the DMRS port group corresponding to the target reference signal resource; and
a transmitting unit, configured to, after the processing unit determines the transmission parameters for the data transmission on each DMRS port group, perform the data transmission on the at least two DMRS port groups.

12. The terminal device of claim 11, wherein the receiving unit is specifically configured to:
receive the at least two DMRS port groups configured by the network device through high-layer signaling; or

receive the at least two DMRS port groups indicated by the network device through Downlink Control Information (DCI) from a plurality of DMRS port groups, wherein the plurality of DMRS port groups are DMRS port groups pre-configured by the network device through high-layer signaling.

5

13. The terminal device of any one of claims 11-12, wherein the processing unit is specifically configured to:

receive, from the network device, resource indication information carried by the DCI used to schedule the data transmission on the at least two DMRS port groups, wherein the resource indication information is used to indicate the target reference signal resource corresponding to each DMRS port group; and

10

determine the target reference signal resource corresponding to each DMRS port group according to the resource indication information.

15

14. The terminal device of any one of claims 11-13, wherein the processing unit is specifically configured to:

acquire precoding matrix indication information from the network device; and

determine, according to a number of antenna ports in the target reference signal resource and the precoding matrix indication information, a precoding matrix for the data transmission on the DMRS port group corresponding to the target reference signal resource.

20

15. The terminal device of any one of claims 11-14, wherein the processing unit is specifically configured to:

25

determine a beam for transmitting or receiving a reference signal on the target reference signal resource as a beam for the data transmission on the DMRS port group corresponding to the target reference signal resource.

16. The terminal device of any one of claims 11-15, wherein the processing unit is specifically configured to:

30

determine, according to power control parameters corresponding to the target reference signal resource, transmission power for the data transmission on the DMRS port group corresponding to the target reference signal resource.

17. The terminal device of claim 16, wherein the processing unit is specifically configured to:

determine, according to second power control parameters, the transmission power for the data transmission on the DMRS port group corresponding to the target reference signal resource, wherein the second power control parameters are a power control parameters pre-configured by the network device to be associated with the target reference signal resource or the indication information of the target reference signal resource.

10

18. The terminal device of any one of claims 16-17, wherein the power control parameter comprises at least one of an open loop power control parameter, a closed loop power control parameter or a path loss estimation value.

15 19. The terminal device of any one of claims 11-18, wherein the processing unit is specifically configured to:

determine a panel for transmitting or receiving the reference signal on the target reference signal resource as a panel for the data transmission on the DMRS port group corresponding to the target reference signal resource.

20

20. The terminal device of any one of claims 11-19, wherein the target reference signal resource is a Sounding Reference Signal (SRS) resource or a Channel State Information Reference Signal (CSI-RS) resource.