WHAT IS CLAIMED IS:

1. A method for reporting channel state information, performed by a terminal, comprising:

obtaining the channel state information through a measurement based on at least one channel measurement resource CMR, wherein the channel state information comprises a measurement result of the measurement based on the at least one CMR, and the measurement result comprises a precoding matrix indicator PMI shared by the at least one CMR; and

reporting the channel state information;

wherein the PMI comprises one or more PMI feedback parameters.

2. The method for reporting channel state information according to claim 1, wherein each CMR of the at least one CMR corresponds to a CMR resource set, and at least two different CMRs correspond to different CMR resource sets.

3. The method for reporting channel state information according to claim 2, wherein the CMR resource set corresponds to a resource parameter, the resource parameter comprises one or more of a pool index of a control resource set, a transmission and reception point, or a remote radio header, and different CMR resource sets correspond to different resource parameters.

4. The method for reporting channel state information according to claim 1, wherein a phase offset exists between V matrices corresponding to at least two CMRs of the at least one CMR, and the one or more PMI feedback parameters are carried in an X1 information field and/or an X2 information field;

wherein the X1 information field is configured to carry a first wideband PMI feedback parameter, and the X2 information field is configured to carry a second wideband PMI feedback parameter or a narrowband PMI feedback parameter.

5. The method for reporting channel state information according to claim 4, wherein the first wideband PMI feedback parameter carried in the X1 information field comprises a first group of PMI feedback parameters; and

the first group of PMI feedback parameters comprise at least one of:

a first PMI feedback parameter, wherein the first PMI feedback parameter is determined based on a number of antenna ports in a first dimension and a number of oversamplings in a first dimension, or based on a number of antenna ports in a first dimension and a number of beams in a first dimension;

a second PMI feedback parameter, wherein the second PMI feedback parameter is determined based on a number of antenna ports in a second dimension and a number of oversamplings in a second dimension, or based on a number of antenna ports in a second dimension and a number of beams in a second dimension;

a third PMI feedback parameter, wherein the third PMI feedback parameter is used to indicate a relative difference between other layers and a first layer in terms of the first PMI feedback parameter and/or the second PMI feedback parameter; or

a fourth PMI feedback parameter, wherein the fourth PMI feedback parameter indicates the phase offset between the V matrices corresponding to the at least two CMRs of the at least one CMR.

6. The method for reporting channel state information according to claim 5, wherein the first group of PMI feedback parameters comprise the first PMI feedback parameter, and first PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the first group of PMI feedback parameters comprise the second PMI feedback parameter, and second PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the first group of PMI feedback parameters comprise the third PMI feedback parameter, and third PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same.

7. The method for reporting channel state information according to claim 4, wherein the second wideband PMI feedback parameter or the narrowband PMI feedback parameter carried in the X2 information field is used for at least one of: selecting a beam, determining a phase offset, indicating a position of a frequency-domain unit selected, or indicating a position of a nonzero coefficient.

8. The method for reporting channel state information according to claim 4, wherein the first wideband PMI feedback parameter carried in the X1 information field comprises a second group of PMI feedback parameters; and

the second group of PMI feedback parameters comprise at least one of:

a fifth PMI feedback parameter, wherein the fifth PMI feedback parameter is determined based on a number of oversamplings in a first dimension/a number of beams in a first dimension, and a number of oversamplings in a second dimension/a number of beams in a second dimension;

a sixth PMI feedback parameter, wherein the sixth PMI feedback parameter is determined based on a number of antenna ports in a first dimension, a number of antenna ports in a second dimension and/or a number of beams selected;

a seventh PMI feedback parameter, wherein the seventh PMI feedback parameter is used to indicate a relative difference between other layers and a first layer in terms of the fifth PMI feedback parameter and/or the sixth PMI feedback parameter;

an eighth PMI feedback parameter, wherein the eighth PMI feedback parameter indicates the

phase offset between the V matrices corresponding to the at least two CMRs of the at least one CMR; or

a ninth PMI feedback parameter, wherein the ninth PMI feedback parameter is used for adjusting a relative magnitude of a wideband.

9. The method for reporting channel state information according to claim 8, wherein

the second group of PMI feedback parameters comprise the fifth PMI feedback parameter, and fifth PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the second group of PMI feedback parameters comprise the sixth PMI feedback parameter, and sixth PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the second group of PMI feedback parameters comprise the seventh PMI feedback parameter, and seventh PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the second group of PMI feedback parameters comprise the ninth PMI feedback parameter, and ninth PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same.

10. The method for reporting channel state information according to claim 8, wherein the second group of PMI feedback parameters comprise one sixth PMI feedback parameter or a plurality of sixth PMI feedback parameters;

the one sixth PMI feedback parameter is determined based on the number of antenna ports in the first dimension, the number of antenna ports in the second dimension, and/or the number of beams selected, of a same transmission and reception point/radio remote head;

the plurality of sixth PMI feedback parameters are determined based on the number of antenna ports in the first dimension of a plurality of different transmission and reception points/radio remote heads, the number of antenna ports in the second dimension of the plurality of different transmission and reception points/radio remote heads, and/or the number of beams selected of the plurality of different transmission and reception points/radio remote heads.

11. The method for reporting channel state information according to claim 1, wherein each of the at least one CMR corresponds to a different V matrix, and the one or more PMI feedback parameters are carried in an X1 information field or an X2 information field;

wherein the X1 information field is configured to carry a first wideband PMI feedback parameter, and the X2 information field is configured to carry a second wideband PMI feedback parameter or a narrowband PMI feedback parameter.

12. The method for reporting channel state information according to claim 11, wherein the

first wideband PMI feedback parameter carried in the X1 information field comprises:

a first PMI feedback parameter, wherein the first PMI feedback parameter is determined based on a number of antenna ports in a first dimension and a number of oversamplings in a first dimension, or based on a number of antenna ports in a first dimension and a number of beams in a first dimension; or

a second PMI feedback parameter, wherein the second PMI feedback parameter is determined based on a number of antenna ports in a second dimension and a number of oversamplings in a second dimension, or based on a number of antenna ports in a second dimension and a number of beams in a second dimension; or

a third PMI feedback parameter, wherein the third PMI feedback parameter is used to indicate a relative difference between other layers and a first layer in terms of the first PMI feedback parameter and/or the second PMI feedback parameter.

13. The method for reporting channel state information according to claim 11, wherein the second wideband PMI feedback parameter or the narrowband PMI feedback parameter carried in the X2 information field is used for selecting a beam or determining a phase offset.

14. The method for reporting channel state information according to claim 12, wherein the first wideband PMI feedback parameter carried in the X1 information field comprises a plurality of different first PMI feedback parameters, and different first PMI feedback parameters correspond to different CMRs; or

the first wideband PMI feedback parameter carried in the X1 information field comprises a plurality of different second PMI feedback parameters, and different second PMI feedback parameters correspond to different CMRs; or

the first wideband PMI feedback parameter carried in the X1 information field comprises a plurality of different third PMI feedback parameters, and different third PMI feedback parameters correspond to different CMRs.

15. The method for reporting channel state information according to claim 1, wherein each of the at least one CMR corresponds to a different V matrix, and the one or more PMI feedback parameters comprise at least one of:

a fifth PMI feedback parameter, wherein the fifth PMI feedback parameter is determined based on a number of oversamplings in a first dimension/a number of beams in a first dimension, and a number of oversamplings in a second dimension/a number of beams in a second dimension;

a sixth PMI feedback parameter, wherein the sixth PMI feedback parameter is determined based on a number of antenna ports in a first dimension, a number of antenna ports in a second dimension and/or a number of beams selected;

a seventh PMI feedback parameter, wherein the seventh PMI feedback parameter is used to

indicate a relative difference between other layers and a first layer in terms of the fifth PMI feedback parameter and/or the sixth PMI feedback parameter; or

a ninth PMI feedback parameter, wherein the ninth PMI feedback parameter is used for adjusting a relative magnitude of a wideband.

16. The method for reporting channel state information according to claim 15, wherein the one or more PMI feedback parameters comprise:

a plurality of different fifth PMI feedback parameters, different fifth PMI feedback parameters corresponding to different CMRs; and/or

a plurality of different sixth PMI feedback parameters, different sixth PMI feedback parameters corresponding to different CMRs; and/or

a plurality of different seventh PMI feedback parameters, different seventh PMI feedback parameters corresponding to different CMRs; and/or

a plurality of different ninth PMI feedback parameters, different ninth PMI feedback parameters corresponding to different CMRs.

17. A method for reporting channel state information, performed by a network device, comprising:

acquiring the channel state information reported by a terminal, wherein the channel state information comprises a measurement result of a measurement based on at least one channel measurement resource CMR, and the measurement result comprises a precoding matrix indicator PMI shared by the at least one CMR,

wherein the PMI comprises one or more PMI feedback parameters.

18. The method for reporting channel state information according to claim 17, wherein each CMR of the at least one CMR corresponds to a CMR resource set, and at least two different CMRs correspond to different CMR resource sets.

19. The method for reporting channel state information according to claim 18, wherein the CMR resource set corresponds to a resource parameter, the resource parameter comprises one or more of a pool index of a control resource set, a transmission and reception point, or a remote radio header, and different CMR resource sets correspond to different resource parameters.

20. The method for reporting channel state information according to claim 17, wherein a phase offset exists between V matrices corresponding to at least two CMRs of the at least one CMR, and the one or more PMI feedback parameters are carried in an X1 information field and/or an X2 information field;

wherein the X1 information field is configured to carry a first wideband PMI feedback parameter, and the X2 information field is configured to carry a second wideband PMI feedback parameter or a narrowband PMI feedback parameter.

21. The method for reporting channel state information according to claim 20, wherein the first wideband PMI feedback parameter carried in the X1 information field comprises a first group of PMI feedback parameters; and

the first group of PMI feedback parameters comprise at least one of:

a first PMI feedback parameter, wherein the first PMI feedback parameter is determined based on a number of antenna ports in a first dimension and a number of oversamplings in a first dimension, or based on a number of antenna ports in a first dimension and a number of beams in a first dimension;

a second PMI feedback parameter, wherein the second PMI feedback parameter is determined based on a number of antenna ports in a second dimension and a number of oversamplings in a second dimension, or based on a number of antenna ports in a second dimension and a number of beams in a second dimension;

a third PMI feedback parameter, wherein the third PMI feedback parameter is used to indicate a relative difference between other layers and a first layer in terms of the first PMI feedback parameter and/or the second PMI feedback parameter; or

a fourth PMI feedback parameter, wherein the fourth PMI feedback parameter indicates the phase offset between the V matrices corresponding to the at least two CMRs of the at least one CMR.

22. The method for reporting channel state information according to claim 21, wherein the first group of PMI feedback parameters comprise the first PMI feedback parameter, and first PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the first group of PMI feedback parameters comprise the second PMI feedback parameter, and second PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the first group of PMI feedback parameters comprise the third PMI feedback parameter, and third PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same.

23. The method for reporting channel state information according to claim 20, wherein the second wideband PMI feedback parameter or the narrowband PMI feedback parameter carried in the X2 information field is used for at least one of: selecting a beam, determining a phase offset, indicating a position of a frequency-domain unit selected, or indicating a position of a nonzero coefficient.

24. The method for reporting channel state information according to claim 20, wherein the first wideband PMI feedback parameter carried in the X1 information field comprises a second

group of PMI feedback parameters; and

the second group of PMI feedback parameters comprise at least one of:

a fifth PMI feedback parameter, wherein the fifth PMI feedback parameter is determined based on a number of oversamplings in a first dimension/a number of beams in a first dimension, and a number of oversamplings in a second dimension/a number of beams in a second dimension;

a sixth PMI feedback parameter, wherein the sixth PMI feedback parameter is determined based on a number of antenna ports in a first dimension, a number of antenna ports in a second dimension and/or a number of beams selected;

a seventh PMI feedback parameter, wherein the seventh PMI feedback parameter is used to indicate a relative difference between other layers and a first layer in terms of the fifth PMI feedback parameter and/or the sixth PMI feedback parameter;

an eighth PMI feedback parameter, wherein the eighth PMI feedback parameter indicates the phase offset between the V matrices corresponding to the at least two CMRs of the at least one CMR; or

a ninth PMI feedback parameter, wherein the ninth PMI feedback parameter is used for adjusting a relative magnitude of a wideband.

25. The method for reporting channel state information according to claim 24, wherein

the second group of PMI feedback parameters comprise the fifth PMI feedback parameter, and fifth PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the second group of PMI feedback parameters comprise the sixth PMI feedback parameter, and sixth PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the second group of PMI feedback parameters comprise the seventh PMI feedback parameter, and seventh PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same; and/or

the second group of PMI feedback parameters comprise the ninth PMI feedback parameter, and ninth PMI feedback parameters corresponding to at least two CMRs of the at least one CMR are the same.

26. The method for reporting channel state information according to claim 25, wherein the second group of PMI feedback parameters comprise one sixth PMI feedback parameter or a plurality of sixth PMI feedback parameters;

the one sixth PMI feedback parameter is determined based on the number of antenna ports in the first dimension, the number of antenna ports in the second dimension, and/or the number of beams selected, of a same transmission and reception point/radio remote head;

the plurality of sixth PMI feedback parameters are determined based on the number of antenna ports in the first dimension of a plurality of different transmission and reception points/radio remote heads, the number of antenna ports in the second dimension of the plurality of different transmission and reception points/radio remote heads, and/or the number of beams selected of the plurality of different transmission and reception points/radio remote heads.

27. The method for reporting channel state information according to claim 17, wherein each of the at least one CMR corresponds to a different V matrix, and the one or more PMI feedback parameters are carried in an X1 information field or an X2 information field;

wherein the X1 information field is configured to carry a first wideband PMI feedback parameter, and the X2 information field is configured to carry a second wideband PMI feedback parameter or a narrowband PMI feedback parameter.

28. The method for reporting channel state information according to claim 27, wherein the first wideband PMI feedback parameter carried in the X1 information field comprises:

a first PMI feedback parameter, wherein the first PMI feedback parameter is determined based on a number of antenna ports in a first dimension and a number of oversamplings in a first dimension, or based on a number of antenna ports in a first dimension and a number of beams in a first dimension; or

a second PMI feedback parameter, wherein the second PMI feedback parameter is determined based on a number of antenna ports in a second dimension and a number of oversamplings in a second dimension, or based on a number of antenna ports in a second dimension and a number of beams in a second dimension; or

a third PMI feedback parameter, wherein the third PMI feedback parameter is used to indicate a relative difference between other layers and a first layer in terms of the first PMI feedback parameter and/or the second PMI feedback parameter.

29. The method for reporting channel state information according to claim 27, wherein the second wideband PMI feedback parameter or the narrowband PMI feedback parameter carried in the X2 information field is used for selecting a beam or determining a phase offset.

30. The method for reporting channel state information according to claim 28, wherein the first wideband PMI feedback parameter carried in the X1 information field comprises a plurality of different first PMI feedback parameters, and different first PMI feedback parameters correspond to different CMRs; or

the first wideband PMI feedback parameter carried in the X1 information field comprises a plurality of different second PMI feedback parameters, and different second PMI feedback parameters correspond to different CMRs; or

the first wideband PMI feedback parameter carried in the X1 information field comprises a

plurality of different third PMI feedback parameters, and different third PMI feedback parameters correspond to different CMRs.

31. The method for reporting channel state information according to claim 17, wherein each of the at least one CMR corresponds to a different V matrix, and the one or more PMI feedback parameters comprise at least one of:

a fifth PMI feedback parameter, wherein the fifth PMI feedback parameter is determined based on a number of oversamplings in a first dimension/a number of beams in a first dimension, and a number of oversamplings in a second dimension/a number of beams in a second dimension;

a sixth PMI feedback parameter, wherein the sixth PMI feedback parameter is determined based on a number of antenna ports in a first dimension, a number of antenna ports in a second dimension and/or a number of beams selected;

a seventh PMI feedback parameter, wherein the seventh PMI feedback parameter is used to indicate a relative difference between other layers and a first layer in terms of the fifth PMI feedback parameter and/or the sixth PMI feedback parameter; or

a ninth PMI feedback parameter, wherein the ninth PMI feedback parameter is used for adjusting a relative magnitude of a wideband.

32. The method for reporting channel state information according to claim 21, wherein the one or more PMI feedback parameters comprise:

a plurality of different fifth PMI feedback parameters, different fifth PMI feedback parameters corresponding to different CMRs; and/or

a plurality of different sixth PMI feedback parameters, different sixth PMI feedback parameters corresponding to different CMRs; and/or

a plurality of different seventh PMI feedback parameters, different seventh PMI feedback parameters corresponding to different CMRs; and/or

a plurality of different ninth PMI feedback parameters, different ninth PMI feedback parameters corresponding to different CMRs.

33. A device terminal, comprising:

a processor; and

a memory for storing instructions executable by the processor;

wherein the processor is configured to perform the method for reporting channel state information according to any one of claims 1 to 16.

34. A network device, comprising:

a processor; and

a memory for storing instructions executable by the processor;

wherein the processor is configured to perform the method for reporting channel state information according to any one of claims 17 to 32.