CLAIMS

1. A communication method, wherein the method comprises:

obtaining a first parameter corresponding to each of a plurality of antenna panels;

determining, based on the first parameter corresponding to each of the plurality of antenna panels, a power control parameter set corresponding to each of the plurality of antenna panels;

determining, based on the power control parameter set corresponding to each antenna panel, power for transmitting information on each antenna panel; and

transmitting information on each antenna panel based on the power for transmitting information on each antenna panel.

2. The method according to claim 1, wherein the plurality of antenna panels are two antenna panels; and the determining, based on the power control parameter set corresponding to each antenna panel, power for transmitting information on each antenna panel comprises:

determining first power based on a power control parameter set corresponding to one antenna panel in the two antenna panels and maximum transmit power of a communication device, wherein the first power is power for transmitting information on the one antenna panel; and

determining second power based on a power parameter set corresponding to the other antenna panel in the two antenna panels and the maximum transmit power of the communication device, wherein the second power is power for transmitting information on the other antenna panel.

3. The method according to claim 2, wherein the power control parameter set corresponding to the one antenna panel is used to determine third power, and the power parameter set corresponding to the other antenna panel is used to determine fourth power; and

when a sum of the third power and the fourth power is less than or equal to the maximum transmit power of the communication device, the first power is equal to the third power, and the second power is equal to the fourth power; or

when the sum of the third power and the fourth power is greater than the maximum transmit power of the communication device, the first power is determined based on the third power, the fourth power, and the maximum transmit power, and/or the second power is determined based on the third power, the fourth power, and the maximum transmit power.

4. The method according to claim 3, wherein when the sum of the third power and the fourth power is greater than the maximum transmit power of the communication device, the maximum

transmit power, the third power, the first power, the fourth power, and the second power satisfy the following formula:

$P_1 = P_3 \cdot P_{\max} / \left(P_3 + P_4\right), P_2 = P_4 \cdot P_{\max} / \left(P_3 + P_4\right)$; or

$P_1 = P_3 - \left[\left(P_3 + P_4 - P_{\max}\right) / 2\right], P_2 = P_4 - \left[\left(P_3 + P_4 - P_{\max}\right)\right] / 2$, wherein

$P_{\max}$ is the maximum transmit power, P_1 is the first power, P_2 is the second power, P_3 is the third power, and P_4 is the fourth power.

5. The method according to claim 2, wherein the power control parameter set corresponding to the one antenna panel is used to determine third power, and the power parameter set corresponding to the other antenna panel is used to determine fourth power; and

when a sum of the third power and the fourth power is greater than the maximum transmit power of the communication device, and the third power is less than the fourth power, the first power is equal to the third power, and the second power satisfies the following formula:

$P_2 = P_4 - \left(P_3 + P_4 - P_{\max}\right)$, wherein

$P_{\max}$ is the maximum transmit power, P_1 is the first power, P_2 is the second power, P_3 is the third power, and P_4 is the fourth power.

6. The method according to claim 2, wherein the power control parameter set corresponding to the one antenna panel is used to determine third power, and the power parameter set corresponding to the other antenna panel is used to determine fourth power; and

when a sum of the third power and the fourth power is greater than the maximum transmit power of the communication device, and a path loss of the one antenna panel is less than a path loss of the other antenna panel, the first power is equal to the third power, and the second power satisfies the following formula:

$P_2 = P_4 - \left(P_3 + P_4 - P_{\max}\right)$, wherein

$P_{\max}$ is the maximum transmit power, P_1 is the first power, P_2 is the second power, P_3 is the third power, and P_4 is the fourth power.

7. The method according to claim 1, wherein the plurality of antenna panels are two antenna panels; and the determining, based on the power control parameter set corresponding to each antenna panel, power for transmitting information on each antenna panel comprises:

determining first power based on a power control parameter set of one antenna panel in the two antenna panels and maximum transmit power of the one antenna panel, wherein the first power is power for transmitting information on the one antenna panel; and

determining second power based on a power control parameter set of the other antenna panel in the two antenna panels and maximum transmit power of the other antenna panel, wherein the second power is power for transmitting information on the other antenna panel.

8. The method according to claim 7, wherein the first power is a smallest value in third power and the maximum transmit power of the one antenna panel, wherein the third power is determined based on the power control parameter set of the one antenna panel; and

the second power is a smallest value in fourth power and the maximum transmit power of the other antenna panel, wherein the fourth power is determined based on the power control parameter set of the other antenna panel.

9. The method according to any one of claims 2 to 8, wherein the transmitting information on each antenna panel based on the power for transmitting information on each antenna panel comprises:

transmitting n1 layers of data of a first physical uplink shared channel PUSCH on the one antenna panel based on the first power, and transmitting n2 layers of data of the first PUSCH on the other antenna panel based on the second power.

10. The method according to claim 9, wherein the first power is evenly allocated to n1 layers of the first PUSCH, and the second power is evenly allocated to n2 layers of the first PUSCH.

11. The method according to claim 9 or 10, wherein when n1 is greater than a second threshold, the power control parameter set corresponding to the one antenna panel does not comprise a modulation and coding scheme MCS used to transmit the n1 layers of data of the first PUSCH, or power control of the one antenna panel is unrelated to the MCS used to transmit the n1 layers of data of the first PUSCH.

12. The method according to any one of claims 2 to 8, wherein the transmitting information on each antenna panel based on the power for transmitting information on each antenna panel comprises:

transmitting a second PUSCH on the one antenna panel based on the first power, and transmitting a third PUSCH on the other antenna panel based on the second power.

13. The method according to claim 12, wherein the first power is evenly allocated to L1 layers

of the second PUSCH, and the second power is evenly allocated to L2 layers of the third PUSCH.

14. The method according to claim 12 or 13, wherein when a number L1 of layers of the second PUSCH is greater than a second threshold, the power control parameter set of the one antenna panel does not comprise an MCS used to transmit the second PUSCH, or power control of the one antenna panel is unrelated to the MCS used to transmit the second PUSCH.

15. The method according to any one of claims 2 to 14, wherein a first parameter corresponding to the one antenna panel is a first sounding reference signal resource indicator SRI, and a first parameter corresponding to the other antenna panel is a second SRI; and

the determining, based on the first parameter corresponding to each of the plurality of antenna panels, a power control parameter set corresponding to each of the plurality of antenna panels comprises:

determining, based on a PUSCH power control parameter set corresponding to the first SRI, the power control parameter set corresponding to the one antenna panel, and determining, based on a PUSCH power control parameter set corresponding to the second SRI, the power control parameter set corresponding to the other antenna panel.

16. The method according to claim 15, wherein the obtaining a first parameter corresponding to each of a plurality of antenna panels comprises:

sending a first SRS by using the one antenna panel, to obtain the first SRI corresponding to the first SRS; and sending a second SRS by using the other antenna panel, to obtain the second SRI corresponding to the second SRS.

17. The method according to any one of claims 2 to 8, wherein the transmitting information on each antenna panel based on the power for transmitting information on each antenna panel comprises:

transmitting a third SRS on the one antenna panel based on the first power, and transmitting a fourth SRS on the other antenna panel based on the second power.

18. The method according to claim 17, wherein the power control parameter set corresponding to the one antenna panel is a power control parameter set corresponding to a resource of the third SRS, and the power control parameter set corresponding to the other antenna panel is a power control parameter set corresponding to a resource of the fourth SRS.

19. The method according to claim 18, wherein the obtaining a first parameter corresponding to each of a plurality of antenna panels comprises:

receiving configuration information from a network device, wherein the configuration information is used to configure at least one SRS resource set, the SRS resource set comprises at least one SRS resource, each SRS resource in the SRS resource set corresponds to one power control parameter set, and the resource of the third SRS and the resource of the fourth SRS are SRS resources in the at least one SRS set.

20. A communication method, wherein the method comprises:

obtaining a first parameter corresponding to each of a plurality of antenna panels, wherein the first parameter corresponding to each antenna panel is used to determine a power control parameter set corresponding to each antenna panel, and the power control parameter set corresponding to each antenna panel is used to determine power for transmitting information on each antenna panel; and

sending the first parameter corresponding to each of the plurality of antenna panels to a terminal device.

21. The method according to claim 20, wherein the plurality of antenna panels are two antenna panels, a first parameter corresponding to one antenna panel in the two antenna panels is a first sounding reference signal resource indicator SRI, and a first parameter corresponding to the other antenna panel in the two antenna panels is a second SRI.

22. The method according to claim 21, wherein the obtaining a first parameter corresponding to each of a plurality of antenna panels comprises:

receiving a first sounding reference signal SRS sent by the terminal device by using the one antenna panel, and determining the first SRI corresponding to the first SRS; and receiving a second SRS sent by the terminal device by using the other antenna panel, and determining the second SRI corresponding to the second SRS.

23. The method according to claim 20, wherein the plurality of antenna panels are two antenna panels, one antenna panel in the two antenna panels is used to transmit a third SRS, and the other antenna panel in the two antenna panels is used to transmit a fourth SRS; and

a first parameter corresponding to the one antenna panel is a resource of the third SRS, and a first parameter corresponding to the other antenna panel is a resource of the fourth SRS.

24. The method according to claim 23, wherein the sending the first parameter corresponding to each of the plurality of antenna panels to a terminal device comprises:

sending configuration information to the terminal device, wherein the configuration

information is used to configure at least one SRS resource set, the SRS resource set comprises at least one SRS resource, each SRS resource in the SRS resource set corresponds to one power control parameter set, and the resource of the third SRS and the resource of the fourth SRS are SRS resources in the at least one SRS set.

25. A communication apparatus, wherein the communication apparatus comprises at least one processor; and

the processor is configured to execute a computer program or instructions, to implement the method according to any one of claims 1 to 19 or the method according to any one of claims 20 to 24.

26. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program or instructions, and when the computer program or the instructions are executed by a communication apparatus, the method according to any one of claims 1 to 19 or the method according to any one of claims 20 to 24 is implemented.

27. A computer program product, wherein the computer program product comprises computer instructions; and when some or all of the computer instructions are run on a computer, the method according to any one of claims 1 to 19 or the method according to any one of claims 20 to 24 is performed.