

CLAIMS

What is claimed is:

1. A signal forwarding method, comprising:

receiving a to-be-forwarded signal;

5 amplifying the to-be-forwarded signal based on an amplification gain of the to-be-forwarded signal, wherein the amplification gain of the to-be-forwarded signal is determined by measuring a measurement signal, and the measurement signal corresponds to the to-be-forwarded signal; and forwarding an amplified to-be-forwarded signal;

10 wherein the to-be-forwarded signal is carried on a time-frequency resource; the time-frequency resource corresponds to the measurement signal; the receiving a to-be-forwarded signal specifically comprises receiving a signal carried on the time-frequency resource; and the amplifying the to-be-forwarded signal based on an amplification gain of the to-be-forwarded signal specifically comprises: determining, based on a correspondence between the time-frequency resource and the measurement signal, the amplification gain determined by measuring the measurement signal, and amplifying, based on the amplification gain, the signal carried on the
15 time-frequency resource.

2. The method according to claim 1, wherein the method further comprises:

receiving the measurement signal, and measuring the measurement signal to determine the amplification gain.

20 3. The method according to claim 2, wherein the measuring the measurement signal to determine the amplification gain specifically comprises:

measuring the measurement signal to determine receive quality; and

determining the amplification gain based on the receive quality and target transmit quality.

25 4. The method according to claim 3, wherein the determining the amplification gain based on the receive quality and target transmit quality specifically comprises:

determining the amplification gain based on the receive quality and target transmit quality corresponding to an error vector magnitude, EVM.

5. The method according to any one of claims 1 to 4, wherein the measurement signal is indicated by using at least one of the following signaling:

30 RRC;

a MAC-CE; and

DCI.

6. The method according to claim 4, wherein the EVM is indicated by at least one of the following signaling:

RRC;
a MAC-CE; and
DCI.

5 7. The method according to claim 3, wherein the method further comprises reporting the amplification gain.

8. The method according to claim 7, wherein the method further comprises: receiving indication information, wherein the indication information indicates and is used to determine the amplification gain of the to-be-forwarded signal.

10 9. A communication apparatus, comprising a communication unit and a processing unit, wherein

the communication unit is configured to receive a to-be-forwarded signal;

the processing unit is configured to amplify the to-be-forwarded signal based on an amplification gain of the to-be-forwarded signal, wherein the amplification gain of the to-be-forwarded signal is determined by measuring a measurement signal, and the measurement signal
15 corresponds to the to-be-forwarded signal; and

the communication unit is further configured to forward an amplified to-be-forwarded signal;

wherein the to-be-forwarded signal is carried on a time-frequency resource, and the time-frequency resource corresponds to the measurement signal;

the processing unit is specifically configured to indicate the communication unit to receive a
20 signal carried on the time-frequency resource; and

the processing unit is specifically configured to determine, based on a correspondence between the time-frequency resource and the measurement signal, the amplification gain determined by measuring the measurement signal, and amplify, based on the amplification gain, the signal carried on the time-frequency resource.

25 10. The communication apparatus according to claim 9, wherein the communication unit is further configured to receive the measurement signal; and

the processing unit is further configured to measure the measurement signal to determine the amplification gain.

30 11. The communication apparatus according to claim 10, wherein the processing unit is specifically configured to:

measure the measurement signal to determine receive quality; and

determine the amplification gain based on the receive quality and target transmit quality.

12. The communication apparatus according to claim 11, wherein the processing unit is specifically configured to:

35 determine the amplification gain based on the receive quality and target transmit quality

corresponding to an error vector magnitude EVM.

13. The communication apparatus according to any one of claims 9 to 12, wherein the measurement signal is indicated by using at least one of the following signaling:

RRC;

5 a MAC-CE; and

DCI.

14. The communication apparatus according to claim 12, wherein the EVM is indicated by at least one of the following signaling:

RRC;

10 a MAC-CE; and

DCI.

15. The communication apparatus according to claim 11, wherein the communication unit is further configured to:

report the amplification gain.

15 16. The communication apparatus according to claim 15, wherein the communication unit is further configured to:

receive indication information, wherein the indication information indicates and is used to determine the amplification gain of the to-be-forwarded signal.

17. A communication apparatus, wherein the communication apparatus comprises a processor
20 and a memory, the memory comprises instructions, and when the instructions are run by the processor, the apparatus is enabled to perform the method according to any one of claims 1 to 8.

18. A computer-readable storage medium, wherein the computer-readable storage medium comprises a computer program or instructions, and when the computer program or the instructions are run on a computer, the computer is enabled to perform the method according to any one of
25 claims 1 to 8.

19. A computer program product, wherein when the computer program product runs on a computer, the computer is enabled to perform the method according to any one of claims 1 to 8.