CLAIMS

1. A communication method, comprising:

generating a physical layer protocol data unit PPDU; and

transmitting the PPDU on a channel corresponding to a first bandwidth, wherein

X subcarriers in Y subcarriers corresponding to the first bandwidth are used to carry data corresponding to X data subcarriers of at least one resource unit RU and/or at least one multi-resource unit MRU, the X subcarriers are subcarriers other than K pilot subcarriers in the Y subcarriers, the Y subcarriers further comprise M pilot subcarriers, the M pilot subcarriers are subcarriers other than the X subcarriers and the K pilot subcarriers in the Y subcarriers, X, K, and M are all positive integers, and Y is an integer greater than 2.

2. The method according to claim 1, wherein a sum of quantities of pilot subcarriers corresponding to the at least one RU and/or the at least one MRU is M.

3. The method according to claim 1 or 2, wherein Y=64, X=48, and K=4.

4. The method according to claim 3, wherein M=4.

5. The method according to claim 4, wherein

locations of the X subcarriers are {–28:–23, –20:–8, –5:–1, 1:6, 9:20, 22, 24:28};

locations of the K pilot subcarriers are {–21, –7, 7, 21}; and

locations of the M pilot subcarriers are {–22, –6, 8, 23}.

6. The method according to claim 4, wherein

locations of the X subcarriers are {–28:–24, –22, –20:–9, –6:–1, 1:5, 8:20, 23:28};

locations of the K pilot subcarriers are {–21, –7, 7, 21}; and

locations of the M pilot subcarriers are {–23, –8, 6, 22}.

7. The method according to claim 4, wherein

locations of the X subcarriers are {–26:–22, –20:–8, –6:–1, 1:6, 8:20, 22:26};

locations of the K pilot subcarriers are {–21, –7, 7, 21}; and

locations of the M pilot subcarriers are {–28, –27, 27, 28}.

8. The method according to claim 4, wherein

locations of the X subcarriers are {–27:–22, –20:–15, –13:–8, –6:–1, 1:6, 8:13, 15:20, 22:27};

locations of the K pilot subcarriers are {–21, –7, 7, 21}; and

locations of the M pilot subcarriers are {–28, –14, 14, 28}.

9. The method according to claim 4, wherein

the 1st pilot subcarrier in the M pilot subcarriers is located in {–28:–22}, the 2nd pilot subcarrier in the M pilot subcarriers is located in {–20:–8, –6:–1}, the 3rd pilot subcarrier in the M

pilot subcarriers is located in {1:6, 8:20}, and the 4th pilot subcarrier in the M pilot subcarriers is located in {22:28}.

10. The method according to claim 4, wherein

the 1st pilot subcarrier in the M pilot subcarriers is located in {–28:–22, –20:–8}, the 2nd pilot subcarrier in the M pilot subcarriers is located in {–6:–1}, the 3rd pilot subcarrier in the M pilot subcarriers is located in {1:6}, and the 4th pilot subcarrier in the M pilot subcarriers is located in {8:20, 22:28}.

11. The method according to claim 4, wherein

both the 1st pilot subcarrier and the 2nd pilot subcarrier in the M pilot subcarriers are located in one of the following intervals: {–28:–22}, {–20:–8}, and {–6:–1}; and both the 3rd pilot subcarrier and the 4th pilot subcarrier in the M pilot subcarriers are located in one of the following intervals: {1:6}, {8:20}, and {22:28}.

12. The method according to any one of claims 4 to 11, wherein initial pilot values of the K pilot subcarriers and initial pilot values of the M pilot subcarriers are jointly allocated, and are allocated in ascending order of frequencies of K+M pilot subcarriers as {1, 1, 1, –1, –1, 1, 1, 1}.

13. The method according to any one of claims 4 to 11, wherein initial pilot values of the K pilot subcarriers and initial pilot values of the M pilot subcarriers are jointly allocated, and are allocated in ascending order of frequencies of K+M pilot subcarriers as {–1, –1, 1, 1, 1, –1, –1, 1}.

14. The method according to any one of claims 4 to 11, wherein initial pilot values of the K pilot subcarriers and initial pilot values of the M pilot subcarriers are independently allocated, the initial pilot values allocated to the K pilot subcarriers in ascending order of frequencies are {1, 1, 1, –1}, and the initial pilot values allocated to the M pilot subcarriers in ascending order of frequencies are {1, 1, 1, –1}.

15. The method according to any one of claims 1 to 14, wherein the X data subcarriers correspond to one data subcarrier whose size is a 52-tone RU, or the X data subcarriers correspond to two data subcarriers whose sizes are 26-tone RUs.

16. The method according to claim 1 or 2, wherein Y=128, X=102, K=6, and M≥4; or Y=128, X=96, K=6, and M≥8.

17. The method according to claim 1 or 2, wherein Y=256, X=204, K=8, and M≥8; or Y=256, X=192, K=8, and M≥16; or Y=256, X=228, K=8, and M≥10.

18. The method according to any one of claims 1 to 17, wherein the first bandwidth is a positive integer multiple of 20 megahertz MHz.

19. A communication apparatus, comprising a processor and an interface circuit, wherein the processor is configured to: communicate with another apparatus through the interface circuit, and perform the method according to any one of claims 1 to 18.

20. A communication apparatus, comprising a module configured to perform the method according to any one of claims 1 to 18.