CLAIMS

1. A signal processing method, comprising:

generating a first sequence, wherein the first sequence comprises a preamble sequence, the preamble sequence is a second sequence, the second sequence is an m-sequence, and the m-sequence is obtained by combining a primitive polynomial $x^3 + x^2 + 1$ and an initial value [1, 0, 0];

modulating the first sequence to obtain a first signal; and

sending the first signal.

2. The method according to claim 1, wherein the first sequence further comprises a data sequence, and the data sequence is located after the preamble sequence.

3. A signal processing method, comprising:

generating a first sequence, wherein the first sequence comprises a preamble sequence, the preamble sequence is an equivalent sequence of the second sequence, the equivalent sequence of the second sequence is obtained by performing bitwise negation on the second sequence, and the second sequence is an m-sequence, and the m-sequence is obtained by combining a primitive polynomial $x^5 + x^3 + 1$ and an initial value [1, 0, 1, 1, 0];

modulating the first sequence to obtain a first signal; and

sending the first signal.

4. The method according to claim 3, wherein the first sequence further comprises a data sequence, and the data sequence is located after the preamble sequence.

5. A signal processing method, comprising:

receiving a first signal;

determining a location of a preamble sequence in the first signal, wherein the preamble sequence is a second sequence, the second sequence is an m-sequence, and the m-sequence is obtained by combining a primitive polynomial $x^3 + x^2 + 1$ and an initial value [1, 0, 0].

6. The method according to claim 5, wherein the first sequence further comprises a data sequence, and the data sequence is located after the preamble sequence.

7. The method according to claim 5 or 6, futher comprising:

obtaining a data window based on the location of the preamble sequence in the first signal, and demodulating a data signal in the data window.

8. A signal processing method, comprising:

receiving a first signal;

determining a location of a preamble sequence in the first signal, wherein the preamble sequence is an equivalent sequence of the second sequence, the equivalent sequence of the second

sequence is obtained by performing bitwise negation on the second sequence, and the second sequence is an m-sequence, and the m-sequence is obtained by combining a primitive polynomial $x^5 + x^3 + 1$ and an initial value [1, 0, 1, 1, 0].

9. The method according to claim 8, wherein the first sequence further comprises a data sequence, and the data sequence is located after the preamble sequence.

10. The method according to claim 8 or 9, futher comprising:

obtaining a data window based on the location of the preamble sequence in the first signal, and demodulating a data signal in the data window.

11. A communication apparatus, comprising a memory and a processor, wherein the processor is configured to execute computer instructions stored in the memory, and when the computer instructions are executed, the apparatus is enabled to perform the method according to any one of claims 1 to 4.

12. A communication apparatus, comprising a memory and a processor, wherein the processor is configured to execute computer instructions stored in the memory, and when the computer instructions are executed, the apparatus is enabled to perform the method according to any one of claims 5 to 10.

13. A communication system, comprising a terminal device and a network device, wherein the terminal device is configured to perform the method according to any one of claims 1 to 4, and the network device is configured to perform the method according to any one of claims 5 to 10.

14. A computer-readable storage medium, wherein the computer-readable storage medium stores computer instructions; and when the computer instructions are run on a terminal device or a chip built in the terminal device, the terminal device is enabled to perform the method according to any one of claims 1 to 4.

15. A computer-readable storage medium, wherein the computer-readable storage medium stores computer instructions; and when the computer instructions are run on a network device or a chip built in the network device, the network device is enabled to perform the method according to any one of claims 5 to 10.