

WHAT IS CLAIMED IS:

1. A method for using a power saving signaling pattern, comprising:

determining, by a terminal, a Discontinuous Reception (DRX) timer in an operating state, the DRX timer being one of: an on duration timer with a long DRX cycle, an inactivity timer, an on duration timer with a short DRX cycle, and a retransmission timer;

determining, by the terminal, whether a pattern for monitoring the power saving signaling is used based on the DRX timer; and

monitoring, by the terminal, the power saving signaling based on the pattern for monitoring the power saving signaling in response to determining that the pattern for monitoring the power saving signaling is used.

2. The method as claimed in claim 1, wherein, determining by the terminal whether the pattern for monitoring the power saving signaling is used based on the DRX timer, comprises:

determining that a first pattern for monitoring the power saving signaling is used in response to the DRX timer being the on duration timer with the long DRX cycle; and

determining that a second pattern for monitoring the power saving signaling is used in response to the DRX timer being the on duration timer with the short DRX cycle;

wherein, the first pattern for monitoring the power saving signaling is same with the second pattern for monitoring the power saving signaling, or the first pattern for monitoring the power saving signaling is different from the second pattern for monitoring the power saving signaling.

3. The method as claimed in claim 1, wherein, determining by the terminal whether the pattern for monitoring the power saving signaling is used based on the DRX timer, comprises:

determining that the pattern for monitoring the power saving signaling is not used in response to the DRX timer being the on duration timer with the short DRX cycle.

4. The method as claimed in claim 1, wherein, determining by the terminal whether the pattern for monitoring the power saving signaling is used based on the DRX timer, comprises:

determining that a first pattern for monitoring the power saving signaling is used in response to the DRX timer being the on duration timer with the long DRX cycle; and

determining that a third pattern for monitoring the power saving signaling is used in response to the DRX timer being the inactivity timer;

wherein, the first pattern for monitoring the power saving signaling is same with the third pattern for monitoring the power saving signaling, or the first pattern for monitoring the power saving signaling is different from the third pattern for monitoring the power saving signaling.

5. The method as claimed in claim 1, wherein, determining by the terminal whether the pattern for monitoring the power saving signaling is used based on the DRX timer, comprises:

determining that the pattern for monitoring the power saving signaling is not used in response to the DRX timer being the inactivity timer.

6. The method as claimed in claim 1, wherein, determining by the terminal whether the pattern for monitoring the power saving signaling is used based on the DRX timer, comprises:

determining that a first pattern for monitoring the power saving signaling is used in response to the DRX timer being the on duration timer with the long DRX cycle; and

determining that a fourth pattern for monitoring the power saving signaling is used in response to the DRX timer being the retransmission timer;

wherein, the first pattern for monitoring the power saving signaling is same with the fourth pattern for monitoring the power saving signaling, or the first pattern for monitoring the power saving signaling is different from the fourth pattern for monitoring the power

saving signaling.

7. The method as claimed in claim 1, wherein, determining by the terminal whether the pattern for monitoring the power saving signaling is used based on the DRX timer, comprises:

determining that the pattern for monitoring the power saving signaling is not used in response to the DRX timer being the retransmission timer.

8. The method as claimed in any one of claims 1 to 7, further comprising:

a method for using the pattern for monitoring the power saving signaling being preconfigured;

or

a method for using the pattern for monitoring the power saving signaling being predefined.

9. The method as claimed in any one of claims 1 to 7, wherein, the pattern for monitoring the power saving signaling comprises a cycle of the power saving signaling;

the cycle of the power saving signaling is $1/N$ times or N times of a DRX cycle; the DRX cycle is the long DRX cycle or the short DRX cycle;

or,

the cycle of the power saving signaling is $1/N$ times or N times of a DRX on duration timer, wherein, N is an integer greater than or equal to 1.

10. The method as claimed in any one of claims 1 to 7, wherein, the pattern for monitoring the power saving signaling comprises a cycle of the power saving signaling;

the cycle of the power saving signaling is configured by an absolute time duration.

11. The method as claimed in any one of claims 1 to 7, wherein, the pattern for monitoring the power saving signaling comprises a start time offset of the power saving

signaling;

the start time offset of the power saving signaling is an offset value configured with reference to an on duration of a DRX cycle.

12. An apparatus for using a power saving signaling pattern, comprising:

a processing module, configured to determine a Discontinuous Reception (DRX) timer in an operating state, the DRX timer being one of: an on duration timer with a long DRX cycle, an inactivity timer, an on duration timer with a short DRX cycle, and a retransmission timer;

the processing module, configured to determine whether a pattern for monitoring the power saving signaling is used based on the DRX timer; and

a receiving module, configured to monitor the power saving signaling based on the pattern for monitoring the power saving signaling in response to determining that the pattern for monitoring the power saving signaling is used.

13. The apparatus as claimed in claim 12, wherein,

the processing module is configured to, determine that a first pattern for monitoring the power saving signaling is used in response to the DRX timer being the on duration timer with the long DRX cycle; and

the processing module is configured to, determine that a second pattern for monitoring the power saving signaling is used in response to the DRX timer being the on duration timer with the short DRX cycle;

wherein, the first pattern for monitoring the power saving signaling is same with the second pattern for monitoring the power saving signaling, or the first pattern for monitoring the power saving signaling is different from the second pattern for monitoring the power saving signaling.

14. The apparatus as claimed in claim 12, wherein,

the processing module is configured to, determine that the pattern for monitoring the

power saving signaling is not used in response to the DRX timer being the on duration timer with the short DRX cycle.

15. The apparatus as claimed in claim 12, wherein,

the processing module is configured to, determine that a first pattern for monitoring the power saving signaling is used in response to the DRX timer being the on duration timer with the long DRX cycle; and

the processing module is configured to, determine that a third pattern for monitoring the power saving signaling is used in response to the DRX timer being the inactivity timer;

wherein, the first pattern for monitoring the power saving signaling is same with the third pattern for monitoring the power saving signaling, or the first pattern for monitoring the power saving signaling is different from the third pattern for monitoring the power saving signaling.

16. The apparatus as claimed in claim 12, wherein,

the processing module is configured to, determine that the pattern for monitoring the power saving signaling is not used in response to the DRX timer being the inactivity timer.

17. The apparatus as claimed in claim 12, wherein,

the processing module is configured to, determine that a first pattern for monitoring the power saving signaling is used in response to the DRX timer being the on duration timer with the long DRX cycle; and

the processing module is configured to, determine that a fourth pattern for monitoring the power saving signaling is used in response to the DRX timer being the retransmission timer;

wherein, the first pattern for monitoring the power saving signaling is same with the fourth pattern for monitoring the power saving signaling, or the first pattern for monitoring the power saving signaling is different from the fourth pattern for monitoring the power saving signaling.

18. The apparatus as claimed in claim 12, wherein,
the processing module is configured to, determine that the pattern for monitoring the power saving signaling is not used in response to the DRX timer being the retransmission timer.

19. The apparatus as claimed in any one of claims 12 to 18, wherein,
a method for using the pattern for monitoring the power saving signaling is preconfigured;

or

a method for using the pattern for monitoring the power saving signaling is predefined.

20. The apparatus as claimed in any one of claims 12 to 18, wherein, the pattern for monitoring the power saving signaling comprises a cycle of the power saving signaling;

the cycle of the power saving signaling is $1/N$ times or N times of a DRX cycle; the DRX cycle is the long DRX cycle or the short DRX cycle;

or,

the cycle of the power saving signaling is $1/N$ times or N times of a DRX on duration timer, the DRX cycle is the long DRX cycle or the short DRX cycle;

wherein, N is an integer greater than or equal to 1.

21. The apparatus as claimed in any one of claims 12 to 18, wherein, the pattern for monitoring the power saving signaling comprises a cycle of the power saving signaling;

the cycle of the power saving signaling is configured by an absolute time duration.

22. The apparatus as claimed in any one of claims 12 to 18, wherein, the pattern for monitoring the power saving signaling comprises a start time offset of the power saving signaling;

the start time offset of the power saving signaling is an offset value configured with

reference to an on duration of a DRX cycle.

23. A terminal, comprising:

a processor;

a transceiver coupled to the processor; and

a memory configured to store instructions executable by the processor;

wherein, the processor is configured to load and execute the executable instructions to implement the method as claimed in any one of claims 1 to 11.

24. A computer readable storage medium, wherein the computer readable storage medium stores at least one instruction, at least one program, a code set, or an instruction set, and the at least one instruction, the at least one program, the code set, or the instruction set is loaded and executed by a processor to implement the method as claimed in any one of claims 1 to 11.