

WHAT IS CLAIMED IS:

1. A signal transmission method, characterized in comprising:
acquiring, by a base station, a wake-up capability of a terminal device;
determining, by the base station, a first time position for sending power saving signal according to the wake-up capability; and
sending, by the base station, the power saving signal to the terminal device at the first time position, the power saving signal being used for indicating the terminal device to wake up or sleep at a second time position,
wherein, the wake-up capability comprises a first wake-up capability or a second wake-up capability, and wake-up time corresponding to the first wake-up capability is longer than wake-up time corresponding to the second wake-up capability.
2. The method according to claim 1, wherein the determining, by the base station, a first time position for sending power saving signal according to the wake-up capability comprises:
determining, by the base station, a timing duration between the first time position and the second time position according to the wake-up capability; and
determining, by the base station, the first time position according to the timing duration and the second time position.
3. The method according to claim 2, wherein the timing duration when the terminal device has the first wake-up capability is longer than the timing duration when the terminal device has the second wake-up capability.
4. The method according to claim 2 or 3, wherein the timing duration is a time duration between a start time-point or an end time-point of the first time position and a start time-point of the second time position.
5. The method according to any one of claims 1 to 4, wherein the second time position is a sub-frame or time slot which is the first of the sub-frames or time slots for the terminal device to monitor downlink control channel in a discontinuous reception (DRX) cycle.
6. The method according to any one of claims 1 to 5, wherein the second time position is a paging occasion (PO) for transmitting a paging message.
7. The method according to claim 6, wherein when the power saving signal indicates the terminal device to wake up at the second time position, the method further comprises:

sending, by the base station, the paging message to the terminal device on the PO.

8. The method according to any one of claims 1 to 7, wherein the wake-up time corresponding to the first wake-up capability is a wake-up time that the terminal device with the first wake-up capability needs for waking up, the wake-up time corresponding to the second wake-up capability is a wake-up time that the terminal device with the second wake-up capability needs for waking up.

9. A base station, characterized in comprising:

an acquiring unit, configured to acquire a wake-up capability of a terminal device; a determining unit, configured to determine a first time position for sending power saving signal according to the wake-up capability acquired by the acquiring unit; and

a transceiving unit, configured to send the power saving signal to the terminal device at the first time position determined by the determining unit, the power saving signal being used for indicating the terminal device to wake up or sleep at a second time position,

wherein, the wake-up capability comprises a first wake-up capability or a second wake-up capability, and wake-up time corresponding to the first wake-up capability is longer than wake-up time corresponding to the second wake-up capability.

10. The base station according to claim 9, wherein the determining unit is specifically configured to:

determine a timing duration between the first time position and the second time position according to the wake-up capability; and

determine the first time position according to the timing duration and the second time position,

wherein the timing duration is a time duration between a start time-point or an end time-point of the first time position and a start time-point of the second time position.

11. The base station according to claim 10, wherein the timing duration when the terminal device has the first wake-up capability is longer than the timing duration when the terminal device has the second wake-up capability.

12. The base station according to any one of claims 9 to 11, wherein the second time position is a sub-frame or time slot which is the first of the sub-frames or time slots for the terminal device to monitor downlink control channel in a discontinuous reception (DRX) cycle.

13. The base station according to any one of claims 9 to 12, wherein the second time position is a paging occasion (PO) for transmitting a paging message, and

wherein when the power saving signal indicates the terminal device to wake up at the second time position, the transceiving unit is further configured to:

send the paging message to the terminal device on the PO.

14. The base station according to any one of claims 9 to 13, wherein the wake-up time corresponding to the first wake-up capability is a wake-up time that the terminal device with the first wake-up capability needs for waking up, the wake-up time corresponding to the second wake-up capability is a wake-up time that the terminal device with the second wake-up capability needs for waking up.

15. A signal transmission method, comprising:

reporting, by a terminal device, a wake-up capability of the terminal device, the wake-up capability is used by a base station for determining a first time position for sending power saving signal; and

receiving, by the terminal device, the power saving signal from the base station at the first time position, the power saving signal being used for indicating the terminal device to wake up or sleep at a second time position,

wherein, the wake-up capability comprises a first wake-up capability or a second wake-up capability, and wake-up time corresponding to the first wake-up capability is longer than wake-up time corresponding to the second wake-up capability.

16. The method according to claim 15, wherein the wake-up capability is used by a base station for determining a timing duration between the first time position and the second time position, causing the base station to determine the first time position according to the timing duration and the second time position, and

wherein the timing duration is a time duration between a start time-point or an end time-point of the first time position and a start time-point of the second time position.

17. The method according to claim 16, wherein the timing duration when the terminal device has the first wake-up capability is longer than the timing duration when the terminal device has the second wake-up capability.

18. The method according to any one of claims 15 to 17, wherein the second time position is a sub-frame or time slot which is the first of the sub-frames or time slots for the terminal device to monitor downlink control channel in a discontinuous reception (DRX) cycle.

19. The method according to any one of claims 15 to 18, wherein the second time position is a paging occasion (PO) for transmitting a paging message, and

wherein when the power saving signal indicates the terminal device to wake up at the second time position, the method further comprises:

receiving, by the terminal device, the paging message from the base station on the PO.

20. The method according to any one of claims 15 to 19, wherein the wake-up time corresponding to the first wake-up capability is a wake-up time that the terminal device with the first wake-up capability needs for waking up, the wake-up time corresponding to the second wake-up capability is a wake-up time that the terminal device with the second wake-up capability needs for waking up.