

CLAIMS

1. A method for signal transmission, implemented by a terminal device, the method comprising:

determining a transmission time set of one or more Synchronization Signal Block (SSBs), wherein the transmission time set is determined according to a length of a time window and a Subcarrier Spacing (SCS) of the one or more SSBs, and the time window is configured for transmission of the one or more SSBs; and

receiving the one or more SSBs from a network device based on the transmission time set.

2. The method of claim 1, wherein the transmission time set comprises all possible transmission time at which the one or more SSBs can be transmitted.

3. The method of claim 1, wherein the transmission time set is formed by transmission time corresponding to all possible transmission opportunities for the one or more SSBs.

4. The method of claim 3, wherein the transmission time set is formed by transmission time corresponding to all possible transmission opportunities for the one or more SSBs in the time window

5. The method of any one of claims 1 to 4, wherein the time window is a predefined time window or a measurement time window configured by the network device.

6. The method of any one of claims 1 to 5, wherein the length of the time window is a half subframe and the half subframe is 5ms; and the method for signal transmission is applied to

unlicensed spectrums.

7. The method of any one of claims 5-6, wherein each slot in the time window comprises a transmission opportunity for the one or more SSBs.

8. The method of claim 7, wherein each slot comprises a transmission opportunity for two SSBs.

9. The method of any one of claims 1 to 7, wherein

when the SCS of the one or more SSBs is a first SCS, a maximum amount of the one or more SSBs is first maximum amount L1;

when the SCS of the one or more SSBs is a second SCS, a maximum amount of the one or more SSBs is second maximum amount L2;

wherein the first SCS is not equal to the second SCS and the L1 is not equal to the L2.

10. The method of claim 9, wherein the time window is a measurement time window.

11. The method of any one of claims 1 to 10, wherein the SCS of the one or more SSBs is a predefined SCS or an SCS configured by the network device.

12. A terminal device, comprising a first processing unit and a first communication unit, wherein

the first processing unit is configured to determine a transmission time set of one or more Synchronization Signal Blocks (SSBs), the transmission time set being determined

according to a length of a time window and a Subcarrier Spacing (SCS) of the one or more SSBs, and the time window being configured for transmission of the one or more SSBs; and

the first communication unit is configured to receive the one or more SSBs from a network device based on the transmission time set.

13. The terminal device of claim 12, wherein the transmission time set comprises all possible transmission time at which the one or more SSBs can be transmitted.

14. The terminal device of claim 12, wherein the transmission time set is formed by transmission time corresponding to all possible transmission opportunities for the one or more SSBs.

15. The terminal device of claim 14, wherein the transmission time set is formed by transmission time corresponding to all possible transmission opportunities for the one or more SSBs in the time window

16. The terminal device of claim 15, wherein the time window is a predefined time window or a measurement time window configured by the network device.

17. The terminal device of claim 16, wherein length of the time window is a half subframe and the half subframe is 5ms; and the method for signal transmission is applied to unlicensed spectrums.

18. The terminal device of claim 17, wherein each slot in the time window comprises a transmission opportunity for the one or more SSBs.

19. The terminal device of claim 18, wherein each slot comprises a transmission opportunity for two SSBs.

20. The terminal device of claim 18, wherein

when the SCS of the one or more SSBs is a first SCS, a maximum amount of the one or more SSBs is first maximum amount L1;

when the SCS of the one or more SSBs is a second SCS, a maximum amount of the one or more SSBs is second maximum amount L2;

wherein the first SCS is not equal to the second SCS and the L1 is not equal to the L2.

21. The terminal device of claim 20, wherein the time window is a measurement time window.

22. The terminal device of claim 12, wherein the SCS of the one or more SSBs is a predefined SCS or an SCS configured by the network device.