

CLAIMS

What is claimed is:

1. A method for synchronous signal transmission, characterized in that the method comprises:

transmitting, by a transmitting device, a synchronization signal block on a first frequency domain position, wherein the first frequency domain position is located on the frequency domain candidate position of a synchronization signal, and each 20 MHz subband comprises one frequency domain candidate position of the synchronization signal; wherein the first frequency domain position is the center frequency point position of the synchronization signal block; wherein the frequency domain candidate position of the synchronization signal satisfies the formula $f_c = f_1 + (g * 20) + f_2$,

wherein,

f_c is the candidate position in frequency domain of synchronous signal,

f_1 is the center frequency point position of the first 20MHz subband of the unlicensed frequency band,

$f_1 + (g * 20)$ is the center frequency point position of the $(g+1)$ th 20MHz subband of the unlicensed frequency band, and G is an integer,

f_2 is the offset of the candidate position of the center frequency point of the synchronous signal within a 20MHz subband.

~~2. The method according to claim 1, wherein the first frequency domain position is the center frequency point position of the synchronization signal block.~~

~~3. The method according to claim 2, wherein f_c , f_1 and f_2 satisfy the formula $f_c = f_1 + (g * 20) + f_2$,~~

~~wherein,~~

~~f_c is the candidate position in frequency domain of synchronous signal,~~

~~f_1 is the center frequency point position of the first 20MHz subband of the unlicensed frequency band,~~

~~$f_1 + (g * 20)$ is the center frequency point position of the $(g+1)$ th 20MHz subband of the unlicensed frequency band, and G is an integer,~~

~~f_2 is the offset of the candidate position of the center frequency point of the synchronous signal within a 20MHz subband.~~

~~4~~ 2 The method according to claim ~~3~~ 1, wherein,

the value of the f_2 is at least one of 180hz, -180kHz, 0Hz, 360hz, -360kHz, 5220kHz and

5040kHz.

~~53~~. The method according to any one of claims 1 to ~~42~~, wherein, ~~the a~~ remaining part shall be continuous 6 RBs or integer multiples of 6 RBs after removing the frequency bandwidth occupied by synchronous signal blocks within the 20M bandwidth.

~~64~~. A method for synchronous signal transmission, characterized in that the method comprises:

monitoring, by the receiving device, for a synchronization signal block on a first frequency domain position, wherein first frequency domain position is located on the frequency domain candidate position of the synchronization signal, and each 20 MHz subband includes one frequency domain candidate position of the synchronization signal; wherein the first frequency domain position is the center frequency point position of the synchronization signal block; wherein the frequency domain candidate position of the synchronization signal satisfies the formula $f_c = f_1 + (g * 20) + f_2$,

wherein,

f_c is the candidate position in frequency domain of synchronous signal,

f_1 is the center frequency point position of the first 20MHz subband of the unlicensed frequency band,

$f_1 + (g * 20)$ is the center frequency point position of the (g+1)th 20MHz subband of the unlicensed frequency band, and G is an integer,

f_2 is the offset of the candidate position of the center frequency point of the synchronous signal within a 20MHz subband.

~~7. The method according to claim 6 wherein the first frequency domain position is the center frequency point position of the synchronization signal block.~~

~~8. The method according to claim 7, wherein f_c , f_1 and f_2 satisfy the formula $f_c = f_1 + (g * 20) + f_2$,~~

~~wherein,~~

~~f_c is the candidate position in frequency domain of synchronous signal,~~

~~f_1 is the center frequency point position of the first 20MHz subband of the unlicensed frequency band,~~

~~$f_1 + (g * 20)$ is the center frequency point position of the (g+1)th 20MHz subband of the unlicensed frequency band, and G is an integer,~~

~~f_2 is the offset of the candidate position of the center frequency point of the synchronous signal within a 20MHz subband.~~

~~95~~. The method according to claim ~~84~~, wherein,

the value of the f2 is at least one of 180hz, -180kHz, 0Hz, 360hz, -360kHz, 5220kHz and 5040kHz.

~~106~~. The method according to any one of claims ~~6-4~~ to ~~95~~, wherein, ~~the a~~ remaining part shall be continuous 6 RBs or integer multiples of 6 RBs after removing the frequency bandwidth occupied by synchronous signal blocks within the 20M bandwidth.

~~117~~. A transmitting device, wherein it comprises a processor and a memory, the memory is configured to store computer programs, and the processor is configured to call and run the computer programs stored in the memory to perform the method described in any one of claims 1 to ~~53~~.

~~128~~. A receiving end device, wherein it comprises a processor and a memory, the memory is configured to store computer programs, and the processor is configured to call and run the computer programs stored in the memory to perform the method according to any one of claims ~~6-4~~ to ~~106~~.

~~139~~. A computer-readable storage medium, wherein the computer-readable storage medium is configured to store a computer program that causes the computer to perform the method described in any one of claims 1 to ~~106~~.