

CLAIMS

1. A method for transmission, applied to a User Equipment (UE), comprising:

when the UE performs inter-frequency measurements without measurement gap, performing at least one of:

when a cell of the inter-frequency measurements is synchronous with a serving cell, the UE being not expected to transmit on a first symbol; or

when the cell of the inter-frequency measurements is not synchronous with the serving cell, the UE being not expected to transmit within a measurement window;

wherein the first symbol comprises one or more items of: symbols to be measured, one or more symbols before the symbols to be measured, or one or more symbols after the symbols to be measured;

wherein the cell of the inter-frequency measurements being synchronous with the serving cell represents one or more of:

a sub-frame boundary across the serving cell and inter-frequency neighbor cells is aligned;

a System Frame Number (SFN) across the serving cell and the inter-frequency neighbor cells is aligned;

the UE can utilize a serving cell timing to derive a SSB index of inter-frequency neighbor cell; or

timings of SSBs across the serving cell and the inter-frequency cells are aligned.

2. The method of claim 1, further comprising:

receiving first information; wherein the first information indicates one or more of:

whether the sub-frame boundary across the serving cell and the inter-frequency neighbor cells is aligned;

whether the SFN across the serving cell and the inter-frequency neighbor cells is aligned;

whether the frame boundary across the serving cell and the inter-frequency neighbor cells is aligned;

whether the UE can utilize the serving cell timing to derive the SSB index of the inter-frequency neighbor cell; or

whether the timings of SSBs across the serving cell and the inter-frequency cells are aligned.

3. The method of claim 1, further comprising:

when a first condition is satisfied, determining that the cell of the inter-frequency measurements is synchronous with the serving cell;

wherein the first condition comprises one or more of:

the frequency of the inter-frequency measurements overlaps at least partially with a frequency of the serving cell; or

the symbols to be measured of the inter-frequency measurements are comprised in a Bandwidth Part (BWP) activated by the UE.

4. The method of claim 2, wherein the cell of the inter-frequency measurements being synchronous with the serving cell further represents:

the frame boundary across the serving cell and the inter-frequency neighbor cells is aligned.

5. The method of claim 1, further comprising:

sending second information; wherein the second information indicates whether the UE supports a first capability; and the first capability comprises one or more of:

the inter-frequency measurements without measurement gap; or

when a sub-carrier spacing of a serving cell is different from a sub-carrier spacing of an inter-frequency neighbor cell, at least one of: receiving data from the serving cell, or measuring the neighbor cell is performed.

6. The method of claim 1, further comprising:

receiving a measurement configuration; wherein the measurement configuration comprises one or more of:

the measurement window; or

information indicating the inter-frequency measurements without measurement gap.

7. A User Equipment (UE), comprising:

a processing module, configured to, when the UE performs inter-frequency

measurements without measurement gap, perform at least one of:

when a cell of the inter-frequency measurements is synchronous with a serving cell, the UE being not expected to transmit on a first symbol; or

when the cell of the inter-frequency measurements is not synchronous with the serving cell, the UE being not expected to transmit within a measurement window;

wherein the first symbol comprises one or more items of: symbols to be measured, one or more symbols before the symbols to be measured, or one or more symbols after the symbols to be measured;

wherein the cell of the inter-frequency measurements being synchronous with the serving cell represents one or more of:

a sub-frame boundary across the serving cell and inter-frequency neighbor cells is aligned;

a System Frame Number (SFN) across the serving cell and the inter-frequency neighbor cells is aligned;

the UE can utilize a serving cell timing to derive a SSB index of inter-frequency neighbor cell; or

timings of SSBs across the serving cell and the inter-frequency cells are aligned.

8. The UE of claim 7, wherein the processing module is a baseband processor.

9. A User Equipment (UE), comprising: a transceiver and a processor;

the processor is configured to, when the UE performs inter-frequency

measurements without measurement gap, perform at least one of:

when a cell of the inter-frequency measurements is synchronous with a serving cell, the UE being not expected to transmit on a first symbol; or

when the cell of the inter-frequency measurements is not synchronous with the serving cell, the UE being not expected to transmit within a measurement window;

wherein the first symbol comprises one or more items of: symbols to be measured, one or more symbols before the symbols to be measured, or one or more symbols after the symbols to be measured;

wherein the cell of the inter-frequency measurements being synchronous with the serving cell represents one or more of:

a sub-frame boundary across the serving cell and inter-frequency neighbor cells is aligned;

a System Frame Number (SFN) across the serving cell and the inter-frequency neighbor cells is aligned;

the UE can utilize a serving cell timing to derive a SSB index of inter-frequency neighbor cell; or

timings of SSBs across the serving cell and the inter-frequency cells are aligned.

10. The UE of claim 9, wherein the processor is a baseband processor.

11. A communication device, comprising: a processor, a memory, and a program which is stored in the memory and capable of running in the processor, wherein when

executed by the processor, the program implements steps of the method for transmission of any one of claims 1 to 6.

12. The communication device of claim 11, wherein the processor is a baseband processor.

13. A computer-readable storage medium having stored thereon a computer program which, when executed by a processor, implements steps of the method for transmission of any one of claims 1 to 6.

14. A communication apparatus, wherein the communication apparatus is a User Equipment (UE) or a chip in the UE or a baseband processor in the UE, and is configured to:

when the UE performs inter-frequency measurements without measurement gap, performing at least one of:

when a cell of the inter-frequency measurements is synchronous with a serving cell, the UE being not expected to transmit on a first symbol; or

when the cell of the inter-frequency measurements is not synchronous with the serving cell, the UE being not expected to transmit within a measurement window;

wherein the first symbol comprises one or more items of: symbols to be measured, one or more symbols before the symbols to be measured, or one or more symbols after the symbols to be measured;

wherein the cell of the inter-frequency measurements being synchronous with the serving cell represents one or more of:

a sub-frame boundary across the serving cell and inter-frequency neighbor cells is aligned;

a System Frame Number (SFN) across the serving cell and the inter-frequency neighbor cells is aligned;

the UE can utilize a serving cell timing to derive a SSB index of inter-frequency neighbor cell; or

timings of SSBs across the serving cell and the inter-frequency cells are aligned.