

What is claimed is:

1. A measurement method, performed by a user equipment (UE), comprising:
obtaining first information, the first information being information related to a measurement for a first cell, the measurement for the first cell comprising at least one of:

layer 1 (L1) measurement;
candidate beam detection (CBD);
beam failure detection (BFD); or
radio link monitoring (RLM);

wherein the first information comprises a first factor and the first factor is applied to measurement period if synchronization signal blocks (SSBs) from serving cell and first cell are overlapping.

2. The measurement method according to claim 1, wherein the first cell comprises a neighbor cell, or a cell with different physical cell identifier (PCI) from serving cell.

3. The measurement method according to claim 1, wherein the first factor comprises one of:

a percentage;
a positive number;
a fractional number;

in case that a reference signal of a serving cell partially overlaps with a reference signal of the first cell, the first factor = $K1/(1-A/B)$, or the first factor = $K1/(1-B/A)$, where $K1$ is a positive number, A represents a periodicity of a reference signal for L1 measurement of the first cell, and B represents a periodicity of a reference signal for L1 measurement of the serving cell;

in case that the reference signal of the first cell partially overlaps with a measurement gap, the first factor = $K2/(1-A/Z)$, where $K2$ is a positive number, A represents the periodicity of the reference signal of the layer 1 of the first cell, and Z represents a measurement gap repetition period; and

in case that the reference signal of the serving cell partially overlaps with the reference signal of the first cell, and the reference signal of the first cell partially overlaps with the measurement gap, the first factor = $K3/(1-A/B-A/Z)$, or the first factor = $K3/(1-B/A-A/Z)$, or the first factor = $K3/(1-B/A-B/Z)$, where $K3$ is a positive number, A represents the periodicity of the reference signal of the layer 1 of the first cell, Z represents the measurement gap repetition period, and B represents the periodicity of the reference signal of the layer 1 of the serving cell;

or,

wherein the first factor satisfies one of the following conditions:

in case that a reference signal of a serving cell overlaps with a reference signal of the first cell, the first factor is associated with a parameter A and a parameter B , the parameter A representing a periodicity of a reference signal for L1 measurement of the first cell, and the parameter B representing a periodicity of a reference signal for L1 measurement of the serving cell;

in case that the reference signal of the first cell overlaps with a measurement gap, the first factor is associated with the parameter A and a parameter Z , the parameter A representing the periodicity of the reference signal of the layer 1 of the first cell, and the parameter Z representing a measurement gap repetition period; and

in case that the reference signal of the serving cell overlaps with the reference signal of the first cell, and the reference signal of the first cell overlaps with the measurement gap, the first factor is associated with the parameter A , the parameter B , and the parameter Z , the parameter A representing the periodicity of the reference signal of the layer 1 of the first cell, the parameter Z representing the measurement gap repetition period, and the parameter B representing the periodicity of the reference signal of the layer 1 of the serving cell.

4. The measurement method according to claim 1, wherein the first information comprises a second factor applied to measurement period.

5. The measurement method according to claim 4, wherein the second factor comprises one of:

a percentage;

a positive number;

a fractional number;

in case that a reference signal for L1 measurement of the first cell partially overlaps with a reference signal for L3 measurement of a second cell, the second factor = $M1/(1-A/C)$, or the second factor = $M1/(1-C/A)$, where M1 is a positive number, A represents a periodicity of the reference signal of the layer 1 of the first cell, and C represents a periodicity of the reference signal of the layer 3 of the second cell;

in case that a reference signal of the first cell partially overlaps with a measurement gap, the second factor = $M2/(1-A/Z)$, where M2 is a positive number, A represents the periodicity of the reference signal of the layer 1 of the first cell, and Z represents a measurement gap repetition period; and

in case that the reference signal of the first cell partially overlaps with a reference signal of the second cell, and the reference signal of the first cell partially overlaps with the measurement gap, the second factor = $M3/(1-A/C-A/Z)$, or the second factor = $M3/(1-C/A-A/Z)$, or the second factor = $M3/(1-C/A-C/Z)$, where M3 is a positive number, A represents the periodicity of the reference signal of the layer 1 of the first cell, Z represents the measurement gap repetition period, and C represents the periodicity of the reference signal of the layer 3 of the second cell;

or,

wherein the second factor satisfies one of the following conditions:

in case that a reference signal for L1 measurement of the first cell overlaps with a reference signal for L3 measurement of a second cell, the second factor is associated with a parameter A and a parameter C, the parameter A representing a periodicity of the reference signal of the layer 1 of the first cell, and the parameter C representing a periodicity of the reference signal of the layer 3 of the second cell;

in case that the reference signal of the first cell overlaps with a measurement gap, the second factor is associated with the parameter A and a parameter Z, the parameter A representing the periodicity of the reference signal of the layer 1 of the first cell, and the parameter Z representing a measurement gap repetition period; and

in case that the reference signal of the first cell overlaps with the reference signal of the second cell, and the reference signal of the first cell overlaps with the measurement gap, the second factor is associated with the parameter A, the parameter C, and the parameter Z, the parameter A representing the periodicity of the reference signal of the layer 1 of the first cell, the parameter Z representing the measurement gap repetition period, and the parameter C representing the periodicity of the reference signal of the layer 3 of the second cell.

6. The measurement method according to claim 1, wherein the first information comprises a third factor applied to measurement period.

7. The measurement method according to claim 6, wherein the third factor comprises one of:

- a percentage;
- a positive number;
- a fractional number;

in case that a reference signal for BFD of the first cell partially overlaps with a reference signal for CBD of a third cell, the third factor = $N1/(1-D/E)$, or the third factor = $N1/(1-E/D)$, where N1 is a positive number, D represents a periodicity of the reference signal for BFD of the first cell, and E represents a periodicity of the reference signal for CBD of the third cell;

in case that the reference signal for BFD of the first cell partially overlaps with a measurement gap, the third factor = $N2/(1-D/Z)$, where N2 is a positive number, D represents the periodicity of the reference signal for BFD of the first cell, and Z represents a measurement gap repetition period;

in case that a reference signal for CBD of the first cell partially overlaps with the measurement gap, the third factor = $N6/(1-F/Z)$, where N6 is a positive number, F represents a periodicity of the reference signal for CBD of the first cell, and Z represents the measurement gap repetition period;

in case that the reference signal for BFD of the first cell partially overlaps with the reference signal for CBD of the third cell, and the reference signal for BFD of the first cell partially overlaps with the measurement gap, the third factor = $N3/(1-D/E-$

D/Z), or the third factor = $N3/(1-E/D-D/Z)$, or the third factor = $N3/(1-E/D-E/Z)$, where $N3$ is a positive number, D represents the periodicity of the reference signal for BFD of the first cell, Z represents the measurement gap repetition period, and E represents the periodicity of the reference signal for CBD of the third cell;

in case that the reference signal for CBD of the first cell partially overlaps with a reference signal for BFD of the third cell, the third factor = $N4/(1-F/G)$, or the third factor = $N4/(1-G/F)$, where $N4$ is a positive number, F represents the periodicity of the reference signal for CBD of the first cell, and G represents a periodicity of the reference signal for BFD of the third cell; and

in case that the reference signal for CBD of the first cell partially overlaps with the reference signal for BFD of the third cell, and the reference signal for CBD of the first cell partially overlaps with the measurement gap, the third factor = $N5/(1-F/G-F/Z)$, or the third factor = $N5/(1-G/F-F/Z)$, or the third factor = $N5/(1-G/F-G/Z)$, where $N5$ is a positive number, F represents the periodicity of the reference signal for CBD of the first cell, Z represents the measurement gap repetition period, and G represents the periodicity of the reference signal for BFD of the third cell;

or,

wherein the third factor satisfies one of the following conditions:

in case that a reference signal for BFD of the first cell overlaps with a reference signal for CBD of a third cell, the third factor is associated with a parameter D and a parameter E , the parameter D representing a periodicity of the reference signal for BFD of the first cell, and the parameter E representing a periodicity of the reference signal for CBD of the third cell;

in case that the reference signal for BFD of the first cell overlaps with a measurement gap, the third factor is associated with the parameter D and a parameter Z , the parameter D representing the periodicity of the reference signal for BFD of the first cell, and the parameter Z representing a measurement gap repetition period;

in case that a reference signal for CBD of the first cell overlaps with the measurement gap, the third factor is associated with a parameter F and the parameter Z ,

the parameter F representing a periodicity of the reference signal for CBD of the first cell, and the parameter Z representing the measurement gap repetition period;

in case that the reference signal for BFD of the first cell overlaps with the reference signal for CBD of the third cell, and the reference signal for BFD of the first cell overlaps with the measurement gap, the third factor is associated with the parameter D, the parameter E, and the parameter Z, where the parameter D represents the periodicity of the reference signal for BFD of the first cell, the parameter Z represents the measurement gap repetition period, and the parameter E represents the periodicity of the reference signal for CBD of the third cell;

in case that the reference signal for CBD of the first cell overlaps with a reference signal for BFD of the third cell, the third factor is associated with the parameter F and a parameter G, the parameter F representing the periodicity of the reference signal for CBD of the first cell, and the parameter G representing a periodicity of the reference signal for BFD of the third cell; and

in case that the reference signal for CBD of the first cell overlaps with a reference signal for BFD of the third cell, and the reference signal for CBD of the first cell overlaps with the measurement gap, the third factor is associated with the parameter F, the parameter G and the parameter Z, the parameter F representing the periodicity of the reference signal for CBD of the first cell, the parameter Z representing the measurement gap repetition period, and the parameter G representing the periodicity of the reference signal for BFD of the third cell.

8. The measurement method according to claim 1, wherein the first information comprises at least one of:

first indication information indicating whether a simultaneous measurement is to be performed when a layer 1 measurement of the first cell overlaps with a layer 1 measurement of a serving cell;

second indication information indicating whether a simultaneous measurement is to be performed when the layer 1 measurement of the first cell overlaps with a layer 3 measurement of a second cell;

third indication information indicating whether a simultaneous measurement is to be performed when a BFD measurement of the first cell overlaps with a CBD measurement of a third cell, or indicating whether a simultaneous measurement is to be performed when a CBD measurement of the first cell overlaps with a BFD measurement of the third cell; or

fourth indication information indicating activating or deactivating rapid reporting of a measurement result of the layer 1 measurement of the first cell or a first threshold.

9. The measurement method according to claim 8, comprising:

in case that the fourth indication information indicates activating the rapid reporting of the measurement result of the layer 1 measurement of the first cell or the measurement result of the layer 1 measurement of the first cell is greater than or equal to the first threshold, obtaining P1 measurement results of the layer 1 measurement of the first cell, and then reporting a measurement result to a network side; or

in case that the fourth indication information indicates deactivating the rapid reporting of the measurement result of the layer 1 measurement of the first cell or the measurement result of the layer 1 measurement of the first cell is less than the first threshold, obtaining Q1 measurement results of the layer 1 measurement of the first cell, and then reporting a measurement result to the network side, where P1 is an integer greater than or equal to 1, Q1 is an integer greater than or equal to 1, and P1 is less than Q1.

10. The measurement method according to claim 8, wherein in case that the fourth indication information indicates activating or deactivating the rapid reporting of the measurement result of the layer 1 measurement of the first cell, the fourth indication information comprises a first counter; and the method further comprises:

in case that a quantity of one or more obtained measurement results of the layer 1 measurement of the first cell meets a requirement of the first counter, reporting a measurement result.

11. The measurement method according to claim 9, further comprising:

receiving second information sent by the network side, the second information indicating a second threshold; and

reporting to the network side a measurement result of the layer 1 measurement of the first cell that is greater than or equal to the second threshold.

12. The measurement method according to claim 11, further comprising:

receiving third information sent by the network side, the third information indicating a third threshold; and

in case that a quantity of one or more measurement results of the layer 1 measurement that are greater than or equal to the second threshold satisfies the third threshold, reporting to the network side the one or more measurement results of the layer 1 measurement that are greater than or equal to the second threshold.

13. The measurement method according to claim 12, wherein the third information comprises a second counter; and the method further comprises:

in case that the quantity of the one or more measurement results of the layer 1 measurement that are greater than or equal to the second threshold meets a requirement of the second counter, reporting to the network side the one or more measurement results of the layer 1 measurement that are greater than or equal to the second threshold;

or,

wherein the method further comprises:

receiving fourth information sent by the network side, the fourth information indicating a maximum quantity of reported measurement results; and

in case that the quantity of the one or more measurement results of the layer 1 measurement that are greater than or equal to the second threshold is greater than the maximum quantity, selecting the maximum quantity of measurement results that are greater than or equal to the second threshold for reporting.

14. The measurement method according to claim 9, comprising:

reporting an absolute value of the measurement result; or

reporting a relative value of the measurement result relative to a measurement result of a first beam, wherein the first beam comprises one of: a beam with a highest quality of the first cell; and a beam with a highest quality of the serving cell;

or,

wherein upon reporting the measurement result of the layer 1 measurement of the first cell, the method further comprises: reporting a measurement result for L3 measurement of the first cell; wherein the method further comprises: receiving fifth information sent by the network side, the fifth information indicating whether the UE is to report the measurement result of the layer 3 measurement of the first cell; and in case that the fifth information indicates that the UE is to report the measurement result of the layer 3 measurement of the first cell, reporting the measurement result of the layer 3 measurement of the first cell at the same time as reporting the measurement result of the layer 1 measurement of the first cell.

15. The measurement method according to claim 1, wherein the UE obtains the first information in at least one of following manners:

receiving the first information sent by a network device;

the first information is predetermined; or

determining the first information by the UE itself.

16. A measurement method, performed by a network device, comprising:

sending first information to a UE, the first information being information related to a measurement of a first cell, the measurement of the first cell comprising at least one of:

layer 1 measurement;

CBD;

BFD; or

RLM;

wherein the first information comprises a first factor and the first factor is applied to measurement period if synchronization signal blocks (SSBs) from serving cell and first cell are overlapping.

17. The measurement method according to claim 16, wherein the first cell comprises a neighbor cell, or a cell with different physical cell identifier (PCI) from serving cell.

18. A UE, comprising:

a first processor; and

a first memory configured to store a computer program executable on a processor,

wherein the first processor is configured to, when running the computer program, implement the steps of the measurement method according to any one of claims 1 to 15.

19. A network device, comprising:

a second processor; and

a second memory configured to store a computer program executable on a processor,

wherein the second processor is configured to, when running the computer program, implement the steps of the measurement method according to claim 16 or 17.