

CLAIMS

What is claimed is:

1. A search space SS monitoring method, applied to user equipment UE, wherein the method comprises:

5 in case that a primary cell is self-scheduled and scheduled by a secondary cell, obtaining target information, wherein the target information comprises at least one of the following: configuration information of a first target SS and blind detection resource allocation information of the first target SS, the configuration information is used to indicate the number of blind detections in the first target SS, the blind
10 detection resource allocation information is used to allocate the number of blind detections to an SS in the first target SS, and the number of blind detections comprises at least one of the following: the number of downlink control channel candidates and the number of channel estimations; and

15 monitoring a second target SS in the first target SS based on the target information;

 wherein the first target SS comprises at least one of the following: an SS for self-scheduling of the primary cell, an SS for scheduling the primary cell by the secondary cell, another SS, an SS for joint scheduling, and an SS for single scheduling, wherein

20 the another SS comprises at least one of the following: an SS for self-scheduling of the secondary cell and an SS for scheduling another secondary cell by the secondary cell;

 wherein a maximum number of blind detections of the UE comprises at least one of the following: the maximum number X of blind detections corresponding to
25 self-scheduling of the primary cell of the UE, the maximum number Y of blind detections corresponding to scheduling the primary cell from the secondary cell of the UE, the maximum number P of blind detections supported by the UE in the primary cell; wherein X, Y, P are all natural numbers.

30 2. The method according to claim 1, wherein the configuration information comprises at least one of the following: the number of blind detections in an SS for

self-scheduling of the primary cell, the number of blind detections in an SS for scheduling the primary cell by the secondary cell, the number of blind detections in an SS of the primary cell, the number of blind detections in an SS of the secondary cell, the number of blind detections in an SS for self-scheduling of the secondary cell,
5 the number of blind detections in an SS for scheduling another secondary cell by the secondary cell, the number of blind detections in an SS for scheduling a cell other than the primary cell by the secondary cell, the joint number of blind detections in an SS of the primary cell and an SS of the secondary cell, the number of blind detections in an SS of a scheduling cell, the number of blind detections in an SS for
10 joint scheduling, the number of blind detections in an SS for single scheduling, and the number of blind detections corresponding to a scheduled cell in an SS for joint scheduling

3. The method according to claim 1, wherein the number of blind detections in the first target SS, indicated by the configuration information, satisfies at least one of
15 the following:

the number of blind detections in at least one SS in the first target SS is less than or equal to the maximum number of blind detections of the UE; and

the joint number of blind detections in at least two SSs in the first target SS is less than or equal to the maximum joint number of blind detections of the UE.

4. The method according to claim 1, wherein the number of blind detections in at least one SS in the second target SS is less than or equal to the maximum number of blind detections of the UE;

and/or

the joint number of blind detections in at least two SSs in the second target SS is less
25 than or equal to the maximum joint number of blind detections of the UE.

5. The method according to any one of claims 1 to 4, wherein the maximum number of blind detections of the UE further comprises at least one of the following: the maximum number S of blind detections supported by the UE in the secondary cell, the maximum number F of blind detections corresponding to self-scheduling of
30 the secondary cell of the UE, the maximum number O of blind detections

corresponding to scheduling the another secondary cell by the secondary cell of the UE, the maximum number N of blind detections corresponding to scheduling the cell other than the primary cell by the secondary cell of the UE, and the maximum joint number T of blind detections supported by the UE in the primary cell and the secondary cell, wherein S, F, O, and N are all natural numbers.

6. The method according to claim 5, wherein that the number of blind detections in at least one SS in the first target SS is less than or equal to the maximum number of blind detections of the UE or that the number of blind detections in at least one SS in the second target SS is less than or equal to the maximum number of blind detections of the UE comprises at least one of the following: the number of blind detections in the SS for self-scheduling of the primary cell is less than or equal to X, the number of blind detections in the SS for scheduling the primary cell from the secondary cell is less than or equal to Y, and the number of blind detections in the another SS is less than or equal to S; or,

wherein that the number of blind detections in at least one SS in the first target SS is less than or equal to the maximum number of blind detections of the UE or that the number of blind detections in at least one SS in the second target SS is less than or equal to the maximum number of blind detections of the UE comprises at least one of the following: the number of blind detections in the SS for self-scheduling of the primary cell is less than or equal to X, the number of blind detections in the SS for scheduling the primary cell from the secondary cell is less than or equal to Y, and the number of blind detections in the SS for self-scheduling of the primary cell is less than or equal to P; or,

wherein that the joint number of blind detections in at least two SSs in the first target SS is less than or equal to the maximum joint number of blind detections of the UE or that the joint number of blind detections in at least two SSs in the second target SS is less than or equal to the maximum joint number of blind detections of the UE comprises at least one of the following: the number of blind detections in a third target SS is less than or equal to a first value, the number of blind detections in the third target SS is less than or equal to P, and the number of blind detections in a fourth target SS is less than

or equal to S , wherein

the third target SS comprises the SS for self-scheduling of the primary cell and the SS for scheduling the primary cell from the secondary cell, the first value is a sum of X and Y , and the fourth target SS comprises the SS for scheduling the primary cell from the secondary cell and the another SS.

7. The method according to claim 1, wherein the blind detection resource allocation information comprises at least one of the following: priority information of the first target SS, a weight of the first target SS, and a target excess of the first target SS, wherein the target excess is an excess number of blind detections in the first target SS relative to the maximum number of blind detections of the UE.

8. The method according to claim 7, wherein the monitoring a second target SS in the first target SS based on the target information comprises:

allocating the number of blind detections to all SSs in the first target SS based on the weight of the first target SS, and monitoring all the SSs in the first target SS.

9. The method according to claim 8, wherein a sum of the weighted number of blind detections in an SS for self-scheduling of the primary cell and the weighted number of blind detections in an SS for scheduling the primary cell by the secondary cell is less than or equal to P ;

and/or

a sum of the weighted number of blind detections in the SS for scheduling the primary cell from the secondary cell and the weighted number of blind detections in an SS in another SS is less than or equal to S .

10. A search space SS monitoring method, applied to a network device, wherein the method comprises:

in case that a primary cell is self-scheduled and scheduled by a secondary cell, sending target information to user equipment UE, wherein

the target information comprises at least one of the following: first configuration information of a first target SS and blind detection resource allocation information of the first target SS, the first configuration information is used to indicate the number of blind detections in the first target SS, the blind detection

resource allocation information is used to allocate the number of blind detections to an SS in the first target SS, the number of blind detections comprises at least one of the following: the number of downlink control channel candidates and the number of channel estimations, and the target information is used by the UE to monitor a second target SS in the first target SS;

wherein the first target SS comprises at least one of the following: an SS for self-scheduling of the primary cell, an SS for scheduling the primary cell by the secondary cell, another SS, an SS for joint scheduling, and an SS for single scheduling, wherein

the another SS comprises at least one of the following: an SS for self-scheduling of the secondary cell and an SS for scheduling another secondary cell by the secondary cell;

wherein a maximum number of blind detections of the UE comprises at least one of the following: the maximum number X of blind detections corresponding to self-scheduling of the primary cell of the UE, the maximum number Y of blind detections corresponding to scheduling the primary cell from the secondary cell of the UE, the maximum number P of blind detections supported by the UE in the primary cell; wherein X, Y, P are all natural numbers.

11. The method according to claim 10, wherein the first configuration information comprises at least one of the following: the number of blind detections in an SS for self-scheduling of the primary cell, the number of blind detections in an SS for scheduling the primary cell by the secondary cell, the number of blind detections in an SS of the primary cell, the number of blind detections in an SS of the secondary cell, the number of blind detections in an SS for self-scheduling of the secondary cell, the number of blind detections in an SS for scheduling another secondary cell by the secondary cell, the number of blind detections in an SS for scheduling a cell other than the primary cell by the secondary cell, the joint number of blind detections in an SS of the primary cell and an SS of the secondary cell, the number of blind detections in an SS of a scheduling cell, the number of blind detections in an SS for joint scheduling, the number of blind detections in an SS for

single scheduling, and the number of blind detections corresponding to a scheduled cell in an SS for joint scheduling.

12. The method according to claim 10, wherein the number of blind detections in the first target SS, indicated by the first configuration information, satisfies at least one of the following:

the number of blind detections in at least one SS in the first target SS is less than or equal to the maximum number of blind detections of the UE; and

the joint number of blind detections in at least two SSs in the first target SS is less than or equal to the maximum joint number of blind detections of the UE.

13. The method according to claim 10, wherein the method further comprises: receiving first information sent by the UE, wherein the first information is used to indicate the maximum number of blind detections of the UE.

14. The method according to claim 10 or 12, wherein the method further comprises:

sending second configuration information to the UE, wherein the second configuration information is used to configure the maximum number of blind detections for the UE.

15. The method according to claim 10, wherein the blind detection resource allocation information comprises at least one of the following: priority information of the first target SS, a weight of the first target SS, and a target excess of the first target SS, wherein the target excess is an excess number of blind detections in the first target SS relative to the maximum number of blind detections of the UE.

16. User equipment UE, wherein the UE comprises an obtaining module and a monitoring module, wherein

the obtaining module is configured to in case that a primary cell is self-scheduled and scheduled by a secondary cell, obtain target information, wherein the target information comprises at least one of the following: configuration information of a first target search space SS and blind detection resource allocation information of the first target SS, the configuration information is used to indicate the number of blind detections in the first target SS, the blind detection resource allocation information is

used to allocate the number of blind detections to an SS in the first target SS, and the number of blind detections comprises at least one of the following: the number of downlink control channel candidates and the number of channel estimations; and

the monitoring module is configured to monitor a second target SS in the first target SS based on the target information obtained by the obtaining module;

wherein the first target SS comprises at least one of the following: an SS for self-scheduling of the primary cell, an SS for scheduling the primary cell by the secondary cell, another SS, an SS for joint scheduling, and an SS for single scheduling, wherein

the another SS comprises at least one of the following: an SS for self-scheduling of the secondary cell and an SS for scheduling another secondary cell by the secondary cell;

wherein a maximum number of blind detections of the UE comprises at least one of the following: the maximum number X of blind detections corresponding to self-scheduling of the primary cell of the UE, the maximum number Y of blind detections corresponding to scheduling the primary cell from the secondary cell of the UE, the maximum number P of blind detections supported by the UE in the primary cell; wherein X, Y, P are all natural numbers.

17. A network device, wherein the network device comprises a sending module, wherein

the sending module is configured to in case that a primary cell is self-scheduled and scheduled by a secondary cell, send target information to user equipment UE, wherein

the target information comprises at least one of the following: first configuration information of a first target search space SS and blind detection resource allocation information of the first target SS, the first configuration information is used to indicate the number of blind detections in the first target SS, the blind detection resource allocation information is used to allocate the number of blind detections to an SS in the first target SS, the number of blind detections comprises at least one of the following: the number of downlink control channel

candidates and the number of channel estimations, and the target information is used by the UE to monitor a second target SS in the first target SS;

5 wherein the first target SS comprises at least one of the following: an SS for self-scheduling of the primary cell, an SS for scheduling the primary cell by the secondary cell, another SS, an SS for joint scheduling, and an SS for single scheduling, wherein

the another SS comprises at least one of the following: an SS for self-scheduling of the secondary cell and an SS for scheduling another secondary cell by the secondary cell;

10 wherein a maximum number of blind detections of the UE comprises at least one of the following: the maximum number X of blind detections corresponding to self-scheduling of the primary cell of the UE, the maximum number Y of blind detections corresponding to scheduling the primary cell from the secondary cell of the UE, the maximum number P of blind detections supported by the UE in the
15 primary cell; wherein X, Y, P are all natural numbers.