

CLAIMS

1. A determining method, performed by a terminal, wherein the method comprises:

receiving first information from a network device, wherein the first information is used to indicate to M candidate transmission occasions not excluding a DL slot/subframe/symbol or a flexible slot/subframe/symbol of an uplink data channel in a first period, the first period is a period of a semi-persistent scheduling resource on an unlicensed band, and M is a positive integer greater than or equal to 2; and

determining the M candidate transmission occasions of the uplink data channel in the first period based on the first information;

wherein the first information is used to indicate a time domain resource length set that is corresponding to the M candidate transmission occasions; and the time domain resource length set comprises at least one time domain resource length, and the at least one time domain resource length is used to indicate a time domain resource length of each candidate transmission occasion;

wherein the method further comprises:

determining if all or some time domain resources of one candidate transmission occasion in the M candidate transmission occasions are downlink (DL);

when all or some time domain resources of one candidate transmission occasion in the M candidate transmission occasions are DL, excluding the one candidate transmission occasion.

2. The method according to claim 1, wherein the first information is further used to indicate at least one of the following:

a first time location of each candidate transmission occasion in the first period;

a first time location of the first candidate transmission occasion in the first period; or,

a time window length that is corresponding to the M candidate transmission occasions;

wherein the first time location comprises at least one of the following: a start location and an end location.

3. The method according to claim 2, wherein the M candidate transmission occasions are consecutive or equally spaced in time domain.

4. The method according to claim 2, wherein the M candidate transmission occasions are located in an uplink slot, an uplink subframe, or an uplink symbol.

5. The method according to any one of claims 2 to 4, wherein the determining the M candidate transmission occasions of the uplink data channel in the first period based on the first information comprises:

when the first information is used to indicate a first time location of each candidate transmission occasion, determining each candidate transmission occasion based on the first time

location of each candidate transmission occasion and a corresponding time domain resource length;

or

when the first information is used to indicate a first time location of the first candidate transmission occasion, determining each candidate transmission occasion based on the first time location of the first candidate transmission occasion and a corresponding time domain resource length.

6. A determining method, performed by a network device, wherein the method comprises:

sending first information to a terminal, wherein the first information is used to indicate M candidate transmission occasions not excluding a DL slot/subframe/symbol or a flexible slot/subframe/symbol of an uplink data channel in a first period, M is a positive integer greater than or equal to 2, the first period is a period of a semi-persistent scheduling resource on an unlicensed band, and the first information is used to instruct the terminal to determine the M candidate transmission occasions of the uplink data channel in the first period based on the first information and exclude, from the M candidate transmission occasions, any one candidate transmission occasion of which all or some time domain resources in are downlink (DL);

wherein the first information is used to indicate a time domain resource length set that is corresponding to the M candidate transmission occasions; and the time domain resource length set comprises at least one time domain resource length, and the at least one time domain resource length is used to indicate a time domain resource length of each candidate transmission occasion.

7. A terminal, comprising:

a receiving module, configured to receive first information from a network device, wherein the first information is used to indicate to M candidate transmission occasions not excluding a DL slot/subframe/symbol or a flexible slot/subframe/symbol of an uplink data channel in a first period, the first period is a period of a semi-persistent scheduling resource on an unlicensed band, and M is a positive integer greater than or equal to 2; and

a determining module, configured to determine the M candidate transmission occasions of the uplink data channel in the first period based on the first information received by the receiving module;

wherein the first information is used to indicate a time domain resource length set that is corresponding to the M candidate transmission occasions; and the time domain resource length set comprises at least one time domain resource length, and the at least one time domain resource length is used to indicate a time domain resource length of each candidate transmission occasion;

wherein the determining module is further configured to

determine if all or some time domain resources of one candidate transmission occasion in the M candidate transmission occasions are downlink (DL);

when all or some time domain resources of one candidate transmission occasion in the M candidate transmission occasions are DL, exclude the one candidate transmission occasion.

8. The terminal according to claim 7, wherein the first information is further used to indicate at least one of the following:

a first time location of each candidate transmission occasion in the first period;

a first time location of the first candidate transmission occasion in the first period; or,

a time window length that is corresponding to the M candidate transmission occasions; a

wherein the first time location comprises at least one of the following: a start location and an end location.

9. The terminal according to claim 8, wherein the M candidate transmission occasions are consecutive or equally spaced in time domain.

10. The terminal according to claim 8, wherein the M candidate transmission occasions are located in an uplink slot/subframe/symbol.

11. The terminal according to any one of claims 8 to 10, wherein the determining module is further configured to,

when the first information is used to indicate a first time location of each candidate transmission occasion, determine each candidate transmission occasion based on the first time location of each candidate transmission occasion and a corresponding time domain resource length;

or

when the first information is used to indicate a first time location of the first candidate transmission occasion, determine each candidate transmission occasion based on the first time location of the first candidate transmission occasion and a corresponding time domain resource length.

12. The terminal according to claim 7, wherein the terminal further comprises:

a sending module configured to,

send the uplink data channel on a first candidate transmission occasion; wherein

before the first candidate transmission occasion, a listening result of listening on the semi-persistent scheduling resource by the terminal is idle, the first candidate transmission occasion is at least one of the M candidate transmission occasions, and the uplink data channel carries uplink control information (UCI).

13. A network device, comprising:

a sending module, configured to send first information to a terminal, wherein the first information is used to indicate to M candidate transmission occasions not excluding a DL slot/subframe/symbol or a flexible slot/subframe/symbol of an uplink data channel in a first period, M is a positive integer greater than or equal to 2, the first period is a period of a semi-persistent scheduling resource on an unlicensed band, and the first information is used to instruct the terminal to determine the M candidate transmission occasions of the uplink data channel in the first period based on the first information and exclude, from the M candidate transmission occasions, any one candidate transmission occasion of which all or some time domain resources in are downlink (DL);

wherein the first information is used to indicate a time domain resource length set that is corresponding to the M candidate transmission occasions; and the time domain resource length set comprises at least one time domain resource length, and the at least one time domain resource length is used to indicate a time domain resource length of each candidate transmission occasion.

14. The network device according to claim 13, wherein the first information is further used to indicate at least one of the following:

a first time location of each candidate transmission occasion in the first period; or,

a first time location of the first candidate transmission occasion in the first period; or,

a time window length that is corresponding to the M candidate transmission occasions;

wherein the first time location comprises at least one of the following: a start location and an end location.

15. The network device according to claim 14, wherein the M candidate transmission occasions are consecutive or equally spaced in time domain.

16. The network device according to claim 14, wherein the M candidate transmission occasions are located in an uplink slot/subframe/symbol.

17. A terminal, comprising: a processor, a memory, and a computer program that is stored in the memory and that can run on the processor, wherein when the computer program is executed by the processor, steps in the determining method according to any one of claims 1 to 5 are implemented.

18. A network device, comprising: a processor, a memory, and a computer program that is stored in the memory and that can run on the processor, wherein when the computer program is executed by the processor, steps in the determining method according to claim 6 are implemented.

19. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, steps of the determining method according to any one of claims 1 to 5 or claim 6 are implemented.