

CLAIMS

What is claimed is:

1. A resource allocation method, applied to user equipment, wherein the method comprises:

5 receiving configuration information, wherein the configuration information comprises indication information whether a physical uplink shared channel PUSCH with an interlaced structure is used or not; and

determining, according to the indication information whether a PUSCH with an interlaced structure is used or not, a quantity X of bits comprised in frequency domain
10 resource assignment indication information in downlink control information DCI format 0_0, wherein X is a positive integer; wherein,

in a case that the DCI format 0_0 is located in a common search space, the configuration information is cell-specific configuration signaling;

15 in a case that the DCI format 0_0 is located in a UE-specific search space, the configuration information is UE-dedicated configuration signaling.

2. The method according to claim 1, wherein the method further comprises:

determining, according to the indication information whether the PUSCH with the interlaced structure is used or not, a resource allocation type for a PUSCH scheduled by the DCI format 0_0, comprising:

20 in a case that the indication information indicates that a PUSCH with an interlaced structure is used, determining the resource allocation type to be the resource allocation type for interlaced structures;

or

25 in a case that the indication information indicates that a PUSCH with an interlaced structure is not used, determining the resource allocation type to be the uplink resource allocation type 1.

3. The method according to claim 1, wherein in the case that the DCI format 0_0 is located in the UE-specific search space, and the configuration information is the UE-dedicated configuration signaling, the determining the quantity X of bits according
30 to the indication information whether a PUSCH with an interlaced structure is used or

not comprises:

in a case that the UE-dedicated configuration signaling indicates that a PUSCH with an interlaced structure is used, determining the quantity X of bits based on a subcarrier spacing of an active uplink bandwidth part;

5 or

in a case that the UE-dedicated configuration signaling indicates that a PUSCH with an interlaced structure is not used, determining the quantity X of bits based on a quantity of PRBs comprised in an active uplink bandwidth part.

4. The method according to claim 1, wherein the determining, according to the indication information whether a PUSCH with an interlaced structure is used or not, a quantity X of bits comprised in frequency domain resource assignment indication information in the DCI format 0_0 comprises:

15 in the case that the DCI format 0_0 is located in the common search space, determining the quantity X of bits based on a quantity of PRBs comprised in an initial uplink bandwidth part;

or

in a case that the DCI format 0_0 is located in the UE-specific search space, determining the quantity X of bits according to the indication information whether the PUSCH with the interlaced structure is used or not.

20 5. The method according to claim 4, wherein the determining the quantity X of bits according to the indication information whether the PUSCH with the interlaced structure is used or not comprises:

25 in a case that the indication information indicates that the PUSCH with the interlaced structure is used, determining the quantity X of bits based on a subcarrier spacing of an active uplink bandwidth part;

or

in a case that the indication information indicates that the PUSCH with the interlaced structure is not used, determining the quantity X of bits based on a quantity of PRBs comprised in an active uplink bandwidth part.

30 6. The method according to claim 3 or 5, wherein the determining the quantity X of bits based on a subcarrier spacing of an active uplink bandwidth part comprises:

in a case that a bandwidth of the active uplink bandwidth part is less than or equal to a preset threshold, determining the quantity X of bits based on the subcarrier spacing of the active uplink bandwidth part;

or

5 in a case that the bandwidth of the active uplink bandwidth part is greater than the preset threshold, determining the quantity X of bits based on the subcarrier spacing of the active uplink bandwidth part and the bandwidth of the active uplink bandwidth part.

7. The method according to claim 6, wherein the determining the quantity X of
10 bits based on the subcarrier spacing of the active uplink bandwidth part comprises:

determining the quantity X of bits to be Z, wherein Z represents a quantity of bits used for indicating allocation of interlaced blocks.

8. The method according to claim 7, wherein the determining the quantity X of
15 bits based on the subcarrier spacing of the active uplink bandwidth part and the bandwidth of the active uplink bandwidth part comprises:

determining the quantity X of bits to be a sum of Z and Y, wherein Z represents a quantity of bits used for indicating allocation of interlaced blocks and Y represents a quantity of bits used for indicating listen before talk LBT bandwidth allocation.

9. A resource allocation method, applied to a network device, wherein the method
20 comprises:

transmitting configuration information to user equipment, wherein the
configuration information comprises indication information whether a physical uplink
shared channel PUSCH with an interlaced structure is used or not, such that the user
equipment determines, according to the indication information, a quantity X of bits
25 comprised in frequency domain resource assignment indication information in
downlink control information DCI format 0_0, wherein X is a positive integer; wherein,

in a case that the DCI format 0_0 is located in a common search space, the
configuration information is cell-specific configuration signaling;

in a case that the DCI format 0_0 is located in a UE-specific search space, the
30 configuration information is UE-dedicated configuration signaling.

10. The method according to claim 9, further comprising:

determining, according to the indication information, the quantity X of bits comprised in frequency domain resource assignment indication information in the DCI format 0_0;

or

- 5 determining, according to the indication information, a resource allocation type for the PUSCH scheduled by the DCI format 0_0, wherein the resource allocation type comprises an uplink resource allocation type 1 or a resource allocation type for interlaced structures.

- 10 11. A resource allocation apparatus, applied to user equipment, wherein the apparatus comprises:

a configuration information receiving module, configured to receive configuration information, wherein the configuration information comprises indication information whether a physical uplink shared channel PUSCH with an interlaced structure is used or not; and

- 15 a determining module, configured to determine, according to the indication information whether a physical uplink shared channel PUSCH with an interlaced structure is used or not, a quantity X of bits comprised in frequency domain resource assignment indication information in downlink control information DCI format 0_0, wherein X is a positive integer.

- 20 12. The apparatus according to claim 11, wherein the determining module comprises:

- 25 a third type determining module, configured to: in a case that the indication information indicates that the PUSCH with the interlaced structure is used, determine a resource allocation type for a PUSCH scheduled by DCI format 0_0 to be the resource allocation type for interlaced structures;

or

a fourth type determining module, configured to: in a case that the indication information indicates that the PUSCH with the interlaced structure is not used, determine the resource allocation type to be the uplink resource allocation type 1.

- 30 13. The apparatus according to claim 11, wherein in the case that the DCI format 0_0 is located in the UE-specific search space, and the configuration information is the

UE-dedicated configuration signaling; and

the determining module comprises:

a fifth bit quantity determining module, configured to: in a case that the UE-dedicated configuration signaling indicates that the PUSCH with the interlaced structure is used, determine the quantity X of bits based on a subcarrier spacing of an active uplink bandwidth part;

or

a sixth bit quantity determining module, configured to: in a case that the UE-dedicated configuration signaling indicates that the PUSCH with the interlaced structure is not used, determine the quantity X of bits based on a quantity of PRBs comprised in an active uplink bandwidth part.

14. A resource allocation apparatus, applied to a network device, wherein the apparatus comprises:

a configuration information transmitting module, configured to transmit configuration information to user equipment, wherein the configuration information comprises indication information whether a physical uplink shared channel PUSCH with an interlaced structure is used or not, such that the user equipment determines, according to the indication information, a quantity X of bits comprised in frequency domain resource assignment indication information in the DCI format 0_0, wherein X is a positive integer, wherein,

in a case that the DCI format 0_0 is located in a common search space, the configuration information is cell-specific configuration signaling;

in a case that the DCI format 0_0 is located in a UE-specific search space, the configuration information is UE-dedicated configuration signaling.

15. User equipment UE, comprising a processor, a memory, and a computer program that is stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the resource allocation method according to any one of claims 1 to 8 are implemented.

16. A network device, comprising a processor, a memory, and a computer program that is stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the resource

allocation method according to any one of claims 9 to 10 are implemented.

17. 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, the steps of the resource allocation method according to any one of claims

5 1 to 10 are implemented.