CLAIMS

What is claimed is:

1. ~~A method for determining an initial bandwidth part BWP, comprising~~A communication method, wherein the method is applicable to a first-type terminal device, and comprises:

receiving a system information block (SIB 1), from a network device, wherein the SIB 1 configures frequency resource of a first initial bandwidth part (BWP);

determining a frequency resource of ~~a~~the first initial BWP corresponding to ~~a~~the first-type terminal device, wherein the frequency resource of the first initial BWP ~~is comprised in a frequency resource of~~does not overlap a ~~second initial BWP corresponding to~~frequency resource of a ~~second-type terminal device,~~synchronization signal block (SSB); and ~~the first-type terminal device and the second-type terminal device have different capabilities; and~~

transmitting signaling and/or data to ~~a~~the network device based on the frequency resource of the first initial BWP.

~~2. The method according to claim 1~~2. The method according to claim 1, the frequency resource of the SSB overlap a second initial BWP, the second initial BWP corresponding to a second-type terminal device, and the first-type terminal device and a second-type terminal device have different capabilities.

3. The method according to claim 1 or 2, wherein that the first-type terminal device and the second-type terminal device have different capabilities comprises at least one of the following:

the first-type terminal device and the second-type terminal device have different bandwidth capabilities;

the first-type terminal device and the second-type terminal device have different quantities of transmit and receive antennas; or

the first-type terminal device and the second-type terminal device have different maximum uplink transmit powers.

~~3~~4. The method according to ~~claim~~any one of claims 1 ~~or 2~~to 3, wherein

the first initial BWP comprises at least one of:

system information and/or control information for scheduling transmission of the system information;

paging information and/or control information for scheduling transmission of the paging

information; and

random access response information.

5. The method according to any one of claims 2 to 4, wherein

the first-type terminal device is a new radio (NR) reduced capability terminal device, and the second-type terminal device is a non-NR reduced capability terminal device.

6. A communication method, wherein the method is applicable to network device, and comprises:

transmitting a system information block (SIB 1), wherein the SIB 1 configures frequency resource of ~~the first initial BWP is determined based on a first frequency offset, the first frequency offset belongs to a~~ a first initial bandwidth part (BWP), and the first ~~set, and the first set is a set of second frequency offsets; and~~

~~the first frequency offset is an offset of the~~ initial BWP corresponding to a first-type terminal device, wherein the frequency resource of the first initial BWP ~~relative to~~does not overlap a frequency resource of a synchronization signal block ~~SSB, and the second frequency offset is an offset of the frequency resource of the second initial BWP relative to the frequency resource of the SSB.~~(SSB); and

~~4. The method according~~receiving signaling and/or data to ~~claim 3, wherein~~

the first ~~frequency offset is determined~~-type terminal device based on ~~first configuration information from the network device, and the first configuration information is used to configure~~ the frequency resource of the ~~second~~first initial BWP.

~~5. The method according to claim 3 or 4, wherein~~

~~the first frequency offset is the same as the second frequency offset.~~

~~6. The method according to claim 4, wherein that the first frequency offset is determined based on first configuration information from the network device comprises:~~

~~determining, by the first-type terminal device, a first index value based on the first configuration information;~~

~~determining, by the first-type terminal device, M index values, wherein M is a positive integer, the M index values and the first index value are used to indicate the frequency offsets comprised in the first set, and the M index values are all less than or equal to an index value of the first index value; and~~

~~determining, by the first-type terminal device, the first frequency offset based on a frequency~~

offset indicated by any one of the M index values.

7. The method according to claim 4, wherein that6, the first frequency offset is determined based on first configuration information fromresource of the network device comprises:

determining, bySSB overlap a second initial BWP, the firstsecond initial BWP corresponding to a second-type terminal device, a first index value based on the first configuration information;

determining, by the first-type terminal device, a second index value, wherein the second index value is a value obtained by performing a modulo operation on the first index value using a preset value, and the first index value and the second index value indicate the frequency offsets comprised in the first set; and

determining, by the first-type terminal device, the first frequency offset based on the second index value.

8. The method according to claim 3, wherein

the first frequency offset is determined based on a first quantity of time-frequency resources, the first quantity of time-frequency resources and a second quantity of time-frequency resources correspond to the frequency offsets comprised in the first set, the first quantity of time-frequency resources is a quantity of time-frequency resources closest to the second quantity of time-frequency resources, and the second quantity of time-frequency resources is a quantity of time-frequency resources corresponding to a CORESET 0 of the second-type terminal device.

9. The method according to any one of claims 1 to 8, wherein the method further comprises:

determining a time resource of a first control resource set 0 CORESET 0 corresponding to the first-type terminal device, wherein a radio frame in which first time resources are located does not comprise a time resource for transmitting the synchronization signal block SSB, or a slot in which a first time resource is located does not comprise a time resource of the second CORESET 0 corresponding to the second-type terminal device.

10. The method according to claim 9, wherein the method further comprises:

first time resources corresponding to the same SSB are distributed in two consecutive slots in a radio frame.

11. The method according to any one of claims 1 to 8, comprising:

determining a time resource of a first control resource set 0 CORESET 0 corresponding to the first-type terminal device, wherein a first time resource is comprised in a second time resource, and the second time resource is a time resource of the second CORESET 0 corresponding to the

second-type terminal device.

12. The method according to any one of claims 1 to 8, comprising:

determining a time resource of a first control resource set 0 CORESET 0 corresponding to the first-type terminal device, wherein a first time resource is comprised in a time resource of the synchronization signal block SSB.

13. The method according to any one of claims 9 to 11, wherein

the first time resource is determined based on second configuration information from the network device, and the second configuration information is used to configure the second time resource.

14. An apparatus for determining an initial bandwidth part BWP, comprising:

a processing unit, configured to determine a frequency resource of a first initial BWP corresponding to a first-type terminal device, wherein the frequency resource of the first initial BWP is comprised in a frequency resource of a second initial BWP corresponding to a second-type terminal device, and the first-type terminal device and the second and a second-type terminal device have different capabilities; and.

a communication unit, configured to transmit signaling and/or data to a network device based on the frequency resource of the first initial BWP.

158. The apparatusmethod according to claim 146 or 7, wherein that the first-type terminal device and the second-type terminal device have different capabilities comprises at least one of the following:

the first-type terminal device and the second-type terminal device have different bandwidth capabilities;

the first-type terminal device and the second-type terminal device have different quantities of transmit and receive antennas; or

the first-type terminal device and the second-type terminal device have different maximum uplink transmit powers.

169. The apparatusmethod according to claim 14 or 15any one of claims 6 to 8, wherein

the frequency resource of the first initial BWP is determined based on a first frequency offset, the first frequency offset belongs to a first set, and the first set is a set of second frequency offsets; andcomprises at least one of:

the first frequency offset is an offset of the system information and/or control information for

scheduling transmission of the system information;

paging information and/or control information for scheduling transmission of the paging information; and

random access response information.

10. The method according to any one of claims 7 to 9, wherein

the first-type terminal device is a new radio (NR) reduced capability terminal device, and the second-type terminal device is a non-NR reduced capability terminal device.

11. An apparatus for determining an initial bandwidth part BWP, wherein the apparatus is a first-type terminal device or a chip for the first-type terminal device, the apparatus comprises:

a communication unit, configured to receive a system information block (SIB 1), from a network device, wherein the SIB 1 configures frequency resource of a first initial bandwidth part (BWP);

a processing unit, configured to determine a frequency resource of the first initial BWP ~~relative to~~corresponding to the first-type terminal device, wherein the frequency resource of the first initial BWP does not overlap a frequency resource of a synchronization signal block (SSB~~,~~); and~~–~~

the communication unit, is further configured to transmit signaling and/or data to thenetwork device based on the frequency resource of the first initial BWP.

12. The apparatus according to claim 11, the frequency resource of the SSB overlap a second initial BWP, the second initial BWP corresponding to a second-type terminal device, and the first-type terminal device and a second-type terminal device have different capabilities.

13. The apparatus according to claim 11 or 12, wherein that the first-type terminal device and the second-type terminal device have different capabilities comprises at least one of the following:

the first-type terminal device and the second-type terminal device have different bandwidth capabilities;

the first-type terminal device and the second-type terminal device have different quantities of transmit and receive antennas; or

the first-type terminal device and the second-type terminal device have different maximum uplink transmit powers.

14. The apparatus according to any one of claims 11 to 13, wherein the first initial BWP comprises at least one of:

system information and/or control information for scheduling transmission of the system information;

paging information and/or control information for scheduling transmission of the paging information; and

random access response information.

15. The apparatus according to any one of claims 12 to 14, wherein

the first-type terminal device is a new radio (NR) reduced capability terminal device, and the second-type terminal device is a non-NR reduced capability terminal device.

16. An apparatus, wherein the apparatus is network device or a chip for the network device, the apparatus, comprising:

a communication unit, configured to transmit a system information block (SIB 1), wherein the SIB 1 configures frequency resource of a first initial bandwidth part (BWP), and the first initial BWP corresponding to a first-type terminal device, wherein the frequency ~~offset is an offset~~resource of the first initial BWP does not overlap a frequency resource of ~~the second initial BWP relative to the frequency resource of the SSB.~~a synchronization signal block (SSB); and

the communication unit, is further configured to receive signaling and/or data to the network device based on the frequency resource of the first initial BWP.

17. The apparatus according to claim 16, ~~wherein~~

the ~~first~~ frequency ~~offset is determined based on first configuration information from the network device, and the first configuration information is used to configure the frequency~~ resource of the SSB overlap a second initial BWP, the second initial BWP corresponding to a second-type terminal device, and the first-type terminal device and a second-type terminal device have different capabilities.

18. The apparatus according to claim 16 or 17, wherein that the first-type terminal device and the second-type terminal device have different capabilities comprises at least one of the following:

the first-~~frequency offset is the same as-~~type terminal device and the second-~~frequency offset-~~type terminal device have different bandwidth capabilities;

the first-type terminal device and the second-type terminal device have different quantities of transmit and receive antennas; or

the first-type terminal device and the second-type terminal device have different maximum uplink transmit powers.

19. The apparatus according to ~~claim 17~~any one of claims 16 to 18, wherein the ~~processing unit is specifically configured to~~first initial BWP comprises at least one of:

~~determine a first index value based on the first configuration~~system information~~;~~

~~determine M index values, wherein M is a positive integer, the M index values~~ and ~~the first index value are used to indicate the frequency offsets comprised in the first set, and the M index values are all less than~~ /or ~~equal to an index value~~control information for scheduling transmission of the ~~first index value; and~~system information;

~~determine the first frequency offset based on a frequency offset indicated by any one of the M index values.~~

paging information and/or control information for scheduling transmission of the paging information; and

random access response information.

20. The apparatus according to ~~claim 17, wherein the processing unit is specifically configured to:~~

~~determine a first index value based on the first configuration information;~~

~~determine a second index value, wherein the second index value is a value obtained by performing a modulo operation on the first index value using a preset value, and the first index value and the second index value indicate the frequency offsets comprised in the first set; and~~

~~determine the first frequency offset based on the second index value.~~

~~21. The apparatus according to claim 16, wherein~~

~~the first frequency offset is determined based on a first quantity of time-frequency resources, the first quantity of time-frequency resources and a second quantity of time-frequency resources correspond to the frequency offsets comprised in the first set, the first quantity of time-frequency resources is a quantity of time-frequency resources closest to the second quantity of time-frequency resources, and the second quantity of time-frequency resources is a quantity of time-frequency resources corresponding to a CORESET 0 of the second-type terminal device.~~

~~22. The apparatus according to~~ any one of claims ~~14 to 21, wherein the processing unit is further configured to:~~

~~determine a time resource of a first control resource set 0 CORESET 0 corresponding to the first-type terminal device, wherein a radio frame in which first time resources are located does not comprise a time resource for transmitting the synchronization signal block SSB, or a slot in which~~

~~a first time resource is located does not comprise a time resource of the second CORESET 0 corresponding to the second type terminal device.~~

~~23. The apparatus according to claim 22, wherein~~

~~first time resources corresponding to the same SSB are distributed in two consecutive slots in a radio frame.~~

~~24. The apparatus according to any one of claims 14 to 21, wherein the processing unit is further configured to:~~

~~determine a time resource of a first control resource set 0 CORESET 0 corresponding to the first type terminal device, wherein a first time resource is comprised in a second time resource.~~

~~25. The apparatus according to any one of claims 14 to 21~~17 to 19, wherein ~~the processing unit is further configured to:~~

~~determine a time resource of a first control resource set 0 CORESET 0 corresponding to~~ the first-type terminal device~~, wherein a first time resource~~ is ~~comprised in a time resource of the synchronization signal block SSB.~~

~~26. The apparatus according to any one of claims 22 to 24, wherein~~

~~the first time resource is determined based on second configuration information from the network~~a new radio (NR) reduced capability terminal device, and the second ~~configuration information is used to configure the second time resource~~-type terminal device is a non-NR reduced capability terminal device.

~~27~~21. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program; and when the computer program is run on a computer, the computer is enabled to perform the method according to any one of claims 1 to ~~13~~5, or the computer is enabled to perform the method according to any one of claims 6 to 10.

22. A computer program, which causes a processor to carry out the methods according to any one of claims 1 to 5, or carry out the methods according to any one of claims 6 to 10.