

CLAIMS

1. A method for transmitting a signal, comprising:

determining, by a terminal device, according to a first resource pool for transmitting a first signal, a target numerology for transmitting the first signal, wherein the numerology comprises a subcarrier spacing and a type of a Cyclic Prefix, CP, of the first signal; and

transmitting, by the terminal device, the first signal on a transmission resource of the first resource pool based on the target numerology, comprising:

determining, by the terminal device, a transmission resource index based on transmission parameters of the terminal device, determining, by the terminal device, the transmission resource for transmitting the first signal from at least one transmission resource comprised in the first resource pool according to the transmission resource index, and transmitting, by the terminal device, the first signal on the transmission resource for transmitting the first signal based on the target numerology.

2. The method of claim 1, before determining, by the terminal device, according to the first resource pool for transmitting the first signal, the target numerology for transmitting the first signal, further comprising:

acquiring, by the terminal device, a mapping relationship between at least one resource pool and at least one numerology, wherein the mapping relationship is used for indicating that each resource pool in the at least one resource pool is mapped to one numerology in the at least one numerology, and the at least one resource pool comprises the first resource pool, and

wherein determining, by a terminal device, according to the first resource pool for transmitting the first signal, the target numerology for transmitting the first signal comprises:

determining, by the terminal device, the target numerology for transmitting the first signal from the at least one numerology according to the first resource pool and the mapping relationship.

3. The method of claim 2, wherein acquiring, by the terminal device, the mapping relationship between at least one resource pool and at least one numerology comprises:

receiving, by the terminal device, first indication information from a network device, wherein the first indication information is used for indicating the mapping relationship; and

acquiring, by the terminal device, the mapping relationship between the at least one resource pool and the at least one numerology according to the first indication information.

4. The method of any one of claims 1-3, before determining, by the terminal device, according to the first resource pool for transmitting the first signal, the target numerology for transmitting the first signal, further comprising:

determining, by the terminal device, the first resource pool for transmitting the first signal.

5. The method of claim 4, wherein determining, by the terminal device, the first resource pool for transmitting the first signal comprises:

determining, by the terminal device, the first resource pool for transmitting the first signal according to at least one of a service type of the first signal, a frequency band, or a path loss parameter; or

randomly selecting, by the terminal device, from the at least one resource pool, one resource pool, to be the first resource pool for transmitting the first signal; or

determining, by the terminal device, a resource pool index based on transmission parameters of the terminal device, and determining the first resource pool for transmitting the first signal from the at least one resource pool according to the resource pool index; or

performing, by the terminal device, load measurement on the at least one resource pool and selecting a resource pool with a minimum load or a resource pool smaller than a first threshold value, to be the resource pool for transmitting the first signal; or

detecting, by the terminal device, a second signal except for the first signal, and determining a resource pool, where the second signal is arranged, to be the first resource pool for transmitting the first signal.

6. The method of claim 4, wherein determining, by the terminal device, the first resource pool for transmitting the first signal comprises:

receiving, by the terminal device, second indication information from the network device, wherein the second indication information is used for indicating the first resource pool for transmitting the first signal; and

determining, by the terminal device, the first resource pool for transmitting the first signal according to the second indication information.

7. The method of any one of claims 1-6, wherein the resource pool comprises at least one transmission resource; and each transmission resource in the at least one transmission resource comprises at least one of a physical time frequency resource or a sequence resource.

8. The method of any one of claims 1-7, wherein the first signal is a random access signal or a data signal or an uplink control signal.

9. An apparatus for transmitting a signal, comprising:

a determination module, configured to determine, according to a first resource pool for transmitting a first signal, a target numerology for transmitting the first signal, wherein the numerology comprises a subcarrier spacing and a type of a Cyclic Prefix, CP, of the first signal; and

a transmission module, configured to transmit the first signal on a transmission resource of the first resource pool based on the target numerology, comprising configured to:

determine a transmission resource index based on transmission parameters of the apparatus, determine the transmission resource for transmitting the first signal from at least one transmission resource comprised in the first resource pool according to the transmission resource index, and transmit the first signal on the transmission resource for transmitting the first signal based on the target numerology.

10. The apparatus of claim 9, wherein the apparatus further comprises:

an acquisition module, configured to acquire, before the target numerology for transmitting the first signal is determined according to the first resource pool for

transmitting the first signal, a mapping relationship between at least one resource pool and at least one numerology, wherein the mapping relationship is used for indicating each resource pool in the at least one resource pool is mapped to one numerology in the at least one numerology, and the at least one resource pool comprises the first resource pool; and

the determination module is configured to: determine the target numerology for transmitting the first signal from at least one numerology according to the first resource pool and the mapping relationship.

11. The apparatus of claim 10, wherein the acquisition module is configured to:

receive first indication information from a network device, wherein the first indication information is used for indicating the mapping relationship; and

acquire the mapping relationship between the at least one resource pool and the at least one numerology according to the first indication information.

12. The apparatus of any one of claims 9-11, wherein the determination module is further configured to:

before the target numerology for transmitting the first signal is determined according to the first resource pool for transmitting the first signal, determine the first resource pool for transmitting the first signal.

13. The apparatus of claim 12, wherein the determination module is configured to:

determine the first resource pool for transmitting the first signal according to at least one of a service type of the first signal, a frequency band, or a path loss parameter; or

determine a resource pool index based on transmission parameters of the apparatus, and determine the first resource pool for transmitting the first signal from the at least one resource pool according to the resource pool index; or

perform load measurement on the at least one resource pool and select a resource pool with a minimum load or a resource pool smaller than a first threshold value to be the resource pool for transmitting the first signal; or

detect a second signal except for the first signal, and determine a resource pool, where the second signal is arranged, to be the first resource pool for transmitting the first signal.

14. The apparatus of claim 12, wherein the determination module is configured to:
- receive second indication information from the network device, wherein the second indication information is used for indicating the first resource pool for transmitting the first signal; and
 - determine the first resource pool for transmitting the first signal according to the second indication information.
15. The apparatus of any one of claims 9-14, wherein the resource pool comprises at least one transmission resource; and each transmission resource in the at least one transmission resource comprises at least one of a physical time frequency resource or a sequence resource.
16. The apparatus of any one of claims 9-15, wherein the first signal is a random access signal or a data signal or an uplink control signal.