

CLAIMS

1. A method for transmitting signals, comprising:
 - 5 determining, by a first device according to at least one of a numerology or an operating frequency band for transmitting signals, a beam number for transmitting the signals or a transmission number N of the signals, wherein N is a positive integer; and
 - performing, by the first device according to the beam number or the transmission number N, transmission of the signals with a second device.
- 10 2. The method of claim 1, wherein before determining, by the first device according to at least one of the numerology or the operating frequency band for transmitting the signals, the beam number for transmitting the signals or the transmission number N of the signals, the method further comprises:
 - 15 determining, by the first device, the numerology from at least one numerology, or determining the operating frequency band from at least one operating frequency band.
- 20 3. The method of claim 1 or 2, wherein determining, by the first device according to at least one of the numerology or the operating frequency band for transmitting the signals, the beam number for transmitting the signals or the transmission number N of the signals comprises:
 - 25 determining, by the first device according to the numerology and a predefined first association, the beam number or the transmission number N, wherein the first association is an association between the numerology and the beam number or an association between the numerology and the transmission number N; or
 - 30 determining, by the first device according to the operating frequency band and a predefined second association, the beam number or the transmission number N, wherein the second association is an association between the operating frequency band and the beam number or an association between the operating frequency band and the transmission number N.

4. The method of any one of claims 1-3, wherein performing, by the first device according to the beam number or the transmission number N, transmission of the signals with the second device comprises:
- determining, by the first device according to the beam number or the transmission number N, physical resources or sequence resources corresponding to the beam number or the transmission number N; and
 - performing, by the first device, transmission of the signals with the second device by adopting the physical resources or the sequence resources.
5. The method of any one of claims 1-4, wherein performing, by the first device according to the transmission number N, transmission of the signals with the second device comprises:
- sending, by the first device, N signals to the second device according to the transmission number N; or
 - receiving, by the first device, N signals sent by the second device according to the transmission number N.
6. The method of any one of claims 1-5, wherein after performing, by the first device according to the beam number or the transmission number N, transmission of the signals with the second device, the method further comprises:
- receiving, by the first device from the second device, feedback information according to the beam number or the transmission number N; or
 - sending, by the first device to the second device, feedback information according to the beam number or the transmission number N;
- wherein the feedback information is to indicate a first beam in a beam set corresponding to the beam number, or a first signal in a signal set corresponding to the transmission number N.
7. The method of claim 2, wherein determining, by the first device, the numerology from the at least one numerology comprises one of the following:
- determining, by the first device, the numerology according to indication information sent by the second device, wherein the indication information is to indicate one of the at least one numerology;

determining, by the first device, the numerology from the at least one numerology according to a service type or an operating frequency point of transmission data; or,

5 determining, by the first device, the numerology via a blind detection on the at least one numerology.

8. The method of any one of claims 1-7, wherein the signals comprise at least one signal of the following signals: a synchronization signal, a broadcast signal, a random access signal or a downlink reference signal.

10

9. The method of any one of claims 1-8, wherein the numerology comprises at least one of the following parameters: a subcarrier spacing, a number of subcarriers in a system bandwidth, a number of subcarriers in a Physical Resource Block (PRB), a length of an Orthogonal Frequency Division Multiplexing (OFDM) symbol, a point number of
15 Fourier transform or inverse Fourier transform for generating an OFDM signal, a number of OFDM symbols in a Transmission Time Interval (TTI), a number of TTIs in a predetermined period of time or a type of a signal prefix.

10. The method of any one of claims 1-9, wherein the first device is a network device,
20 and the second device is a terminal device; or

the first device is a terminal device, and the second device is a network device;
or

the first device is a terminal device, and the second device is a terminal device.

25 11. A device for transmitting signals, the device being a first device and comprising:
a first determination unit, configured to determine, according to at least one of a numerology or an operating frequency band for transmitting signals, a beam number for transmitting the signals or a transmission number N of the signals, wherein N is a positive integer; and

30 a transmission unit, configured to perform transmission of the signals with a second device according to the beam number or the transmission number N.

12. The device of claim 11, further comprising:

a second determination unit, configured to determine the numerology from at least one numerology, or determine the operating frequency band from at least one operating frequency band.

- 5 13. The device of claim 11 or 12, wherein the first determination unit is specifically configured to:

 determine the beam number or the transmission number N according to the numerology and a predefined first association, wherein the first association is an association between the numerology and the beam number or an association between
10 the numerology and the transmission number N; or

 determine the beam number or the transmission number N according to the operating frequency band and a predefined second association, wherein the second association is an association between the operating frequency band and the beam number or an association between the operating frequency band the transmission
15 number N.

14. The device of any one of claims 11-13, wherein the transmission unit is specifically configured to:

 determine, according to the beam number or the transmission number N,
20 physical resources or sequence resources corresponding to the beam number or the transmission number N; and

 perform transmission of the signals with the second device by adopting the physical resources or the sequence resources.

- 25 15. The device of any one of claims 11-14, wherein the transmission unit is specifically configured to:

 send, according to the transmission number N, N signals to the second device;
or

 receive N signals sent by the second device according to the transmission
30 number N.

16. The device of any one of claims 11-15, wherein the transmission unit is further configured to:

receive, according to the beam number or the transmission number N, feedback information sent by the second device; or

send, according to the beam number or the transmission number N, feedback information to the second device;

5 wherein the feedback information is to indicate a first beam in a beam set corresponding to the beam number, or a first signal in a signal set corresponding to the transmission number N.

17. The device of claim 12, wherein the second determination unit is specifically
10 configured to:

 determine the numerology according to indication information sent by the second device, wherein the indication information is to indicate one of the at least one numerology; or,

 determine the numerology from the at least one numerology according to a
15 service type or an operating frequency point of transmission data; or,

 determine the numerology via a blind detection on the at least one numerology.

18. The device of any one of claims 11-17, wherein the signals comprise at least one signal of the following signals: a synchronization signal, a broadcast signal, a random
20 access signal or a downlink reference signal.

19. The device of any one of claims 11-18, wherein the numerology comprises at least one of the following parameters: a subcarrier spacing, a number of subcarriers in a system bandwidth, a number of subcarriers in a Physical Resource Block (PRB), a
25 length of an Orthogonal Frequency Division Multiplexing (OFDM) symbol, a point number of Fourier transform or inverse Fourier transform for generating an OFDM signal, a number of OFDM symbols in a Transmission Time Interval (TTI), a number of TTIs in a predetermined period of time or a type of a signal prefix.