

CLAIMS

1. A method for transmitting signals, comprising:

5 determining, by a first device, according to a numerology and an operating frequency band for transmitting signals, a transmission number N of the signals; wherein the signals comprise a Physical Broadcast Channel (PBCH), wherein based on a one-to-one association of the transmission number N and a number of beams, N beamforming signals are obtained via N beams;

10 transmitting, by the first device, the N beamforming signals to a second device; wherein the numerology includes a subcarrier spacing;

 wherein the transmission number N of the signals is selected from one of the following that:

 the transmission number N of the signals is 4 when the subcarrier spacing is
15 15 kHz;

 the transmission number N of the signals is 8 when the subcarrier spacing is 30 kHz;

 the transmission number N of the signals is 8 when the subcarrier spacing is 60 kHz;

20 the transmission number N of the signals is 16 when the subcarrier spacing is 120 kHz; or

 the transmission number N of the signals is 32 when the subcarrier spacing is 240 kHz.

25 2. The method of claim 1, wherein transmitting, by the first device, the N beamforming signals to the second device comprises:

 determining, by the first device according to the transmission number N, physical resources or sequence resources corresponding to the transmission number N; and

30 transmitting, by the first device, the N beamforming signals to the second device by adopting the physical resources or the sequence resources.

3. The method of claim 1 or 2, wherein the first device is a network device, and the second device is a terminal device.

4. A device for transmitting signals, the device being a first device and comprising:

a first determination unit, configured to determine, according to a numerology and an operating frequency band for transmitting signals, a transmission number N of the signals; wherein the signals comprise a Physical Broadcast Channel (PBCH), wherein based on a one-to-one association of the transmission number N and a number of beams, N beamforming signals are obtained via N beams;

a transmission unit, configured to transmit the N beamforming signals to a second device;

wherein the numerology includes a subcarrier spacing;

wherein the transmission number N of the signals is selected from one of the following that:

the transmission number N of the signals is 4 when the subcarrier spacing is 15 kHz;

the transmission number N of the signals is 8 when the subcarrier spacing is 30 kHz;

the transmission number N of the signals is 8 when the subcarrier spacing is 60 kHz;

the transmission number N of the signals is 16 when the subcarrier spacing is 120 kHz; or

the transmission number N of the signals is 32 when the subcarrier spacing is 240 kHz.

5. The device of claim 4, wherein the transmission unit is configured to:

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

transmit the N beamforming signals to the second device by adopting the physical resources or the sequence resources.

6. The device of claim 4 or 5, wherein the first device is a network device, and the second device is a terminal device.

7. A method for receiving signals, comprising:

receiving, by a second device, N beamforming signals transmitted from a first device; wherein based on a one-to-one association of a transmission number N of signals and a number of beams, the N beamforming signals are obtained via N beams, the transmission number N of the signals is determined according to a numerology and an operating frequency band for transmitting the signals, the signals comprise a Physical Broadcast Channel (PBCH), the numerology includes a subcarrier spacing, and the transmission number N of the signals is selected from one of the following that: the transmission number N of the signals is 4 when the subcarrier spacing is 15 kHz, the transmission number N of the signals is 8 when the subcarrier spacing is 30 kHz, the transmission number N of the signals is 8 when the subcarrier spacing is 60 kHz, the transmission number N of the signals is 16 when the subcarrier spacing is 120 kHz, or the transmission number N of the signals is 32 when the subcarrier spacing is 240 kHz; and

processing, by the second device, the received N signals.

8. The method of claim 7, wherein the first device is a network device, and the second device is a terminal device.

9. A device for receiving signals, the device being a second device, comprising:

a processor;

a memory, configured to store instructions executable by the processor; and

a transceiver;

wherein the processor is configured to:

control the transceiver to receive N beamforming signals transmitted from a first device; wherein based on a one-to-one association of a transmission number N of signals and a number of beams, the N beamforming signals are obtained via N beams, the transmission number N of the signals is determined according to a numerology and an operating frequency band for transmitting the signals, the signals comprise a Physical Broadcast Channel (PBCH), the numerology includes a subcarrier spacing, and the transmission number N of the signals is selected from one of the following that: the transmission number N of the signals is 4 when the subcarrier spacing is 15 kHz, the transmission number N of the signals is 8 when the subcarrier spacing is 30 kHz, the transmission number N of the signals is 8 when the subcarrier spacing is 60 kHz, the transmission number N of the signals is 16 when the subcarrier spacing is 120 kHz, or the transmission number N of the signals is 32 when the subcarrier spacing is 240 kHz; and

kHz, the transmission number N of the signals is 16 when the subcarrier spacing is 120 kHz, or the transmission number N of the signals is 32 when the subcarrier spacing is 240 kHz; and

process the received N signals.

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10. The device of claim 9, wherein the first device is a network device, and the second device is a terminal device.