

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 subcarrier spacing for transmitting signals;~~

~~determining, by the first device according to the subcarrier spacing, 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~~
10 transmission number N and a number of beams, N beamforming signals are obtained via N beams, ~~and the operating frequency band is transmitting frequency band of PBCH; and~~

transmitting, by the first device, the N beamforming signals to a second device according to ~~the transmission number N;~~

15 wherein the numerology includes a subcarrier spacing;

~~wherein the transmission number N and a number of beams for transmitting the signals are in one-to-one association;~~

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

20 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 25 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.

30 2. ~~The method of claim 1, wherein determining, by the first device according to the subcarrier spacing, the transmission number N of the signals comprises:~~

~~determining, by the first device according to the subcarrier spacing and a predefined association, the transmission number N, wherein the predefined~~

~~association is an association between the subcarrier spacing and the transmission number N.~~

32. The method of claim 1 ~~or 2~~, 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

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

43. The method of ~~any one of claims 1-3~~ claim 1 or 2, wherein the first device is a network device, and the second device is a terminal device.

54. 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 subcarrier spacing for transmitting signals; and determine, according to the subcarrier spacing, 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~~ and the operating frequency band is transmitting frequency band of PBCH; and

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

wherein the numerology includes a subcarrier spacing;

~~wherein the transmission number N and a number of beams for transmitting the signals are in one-to-one association;~~

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;

5 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.

10 ~~6. The device of claim 5, wherein the first determination unit is configured to:
determine the transmission number N according to the subcarrier spacing and
a predefined association, wherein the predefined association is an association between
the subcarrier spacing and the transmission number N.~~

15 ~~75. The device of claim 5 or 64, 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.~~

20

~~86. The device of claim 4 or 5any one of claims 5-7, wherein the first device is a
network device, and the second device is a terminal device.~~

97. A method for receiving signals, comprising:

25 receiving, by a second device, N beamforming signals transmitted ~~on a~~
~~Physical Broadcast Channel, PBCH~~ 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, a the transmission number N of the
signals is determined according to a numerology and a subcarrier spacing for PBCH,
30 ~~the subcarrier spacing is determined according to an operating frequency band for~~
~~transmitting the signals~~PBCH, the signals comprise a Physical Broadcast Channel
~~(PBCH)the transmission number N and a number of beams for transmitting the~~
~~signals are in one to one association, 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.

10 408. The method of claim 97, wherein the first device is a network device, and the second device is a terminal device.

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

a processor;

15 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 on a ~~Physical Broadcast Channel, PBCH~~ 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 a-transmission number N of the signals is determined according to a numerology and a subcarrier spacing for PBCH, the subcarrier spacing is determined according to an operating frequency band for transmitting the signals PBCH, the signals comprise a Physical Broadcast Channel (PBCH), the numerology includes a subcarrier spacing, the transmission number N and a number of beams for transmitting the signals are in one-to-one association, 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

process the received N signals.

1210. The device of claim 119, wherein the first device is a network device, and the second device is a terminal device.

5