

CLAIMS:

1. A method for transmitting capability information in a wireless communication network, comprising:

generating, by a terminal, terminal capability information, the terminal capability information being used for indicating a parallel processing capability of the terminal for signals sent and/or received by at least two subcarriers with different subcarrier spacings, and/or used for indicating a data buffer capability of the terminal; and

sending, by the terminal, the terminal capability information to a network device;

wherein the terminal capability information comprises at least one of the following:

uplink subcarrier spacing and uplink bandwidth supported by the terminal for sending signals in parallel, at least two of the uplink subcarrier spacing being different; and,

downlink subcarrier spacing and downlink bandwidth supported by the terminal for receiving signals in parallel, at least two of the downlink subcarrier spacing being different.

wherein before generating, by the terminal, the terminal capability information, the method further comprises:

receiving, by the terminal, first uplink subcarrier spacing and first uplink bandwidth and/or first downlink subcarrier spacing and first downlink bandwidth supported by a camped cell sent by the network device;

wherein generating, by the terminal, the terminal capability information comprises:

generating, by the terminal, the terminal capability information, the terminal capability information comprising: second uplink subcarrier spacing and second uplink bandwidth, and/or second downlink subcarrier spacing and second downlink bandwidth;

wherein the camped cell is a cell in which the terminal camps currently, the second uplink subcarrier spacing and the second uplink bandwidth are a subset of the first uplink subcarrier spacing and the first uplink bandwidth, and the second downlink subcarrier spacing and the second downlink bandwidth are a subset of the first downlink subcarrier spacing and first downlink bandwidth.

2. The method according to claim 1, wherein receiving, by the terminal, the first uplink subcarrier spacing and the first uplink bandwidth and/or the first downlink subcarrier spacing and the first downlink bandwidth, comprises:

receiving, by the terminal, system information; and

retrieving, by the terminal, the first uplink subcarrier spacing and the first uplink bandwidth, and/or the first downlink subcarrier spacing and the first downlink bandwidth from a predetermined system information block in the system information.

3. The method according to claim 1, wherein the method further comprises:

obtaining, by the terminal, a terminal capability enquiry.

4. A method for receiving capability information in a wireless communication network, comprising:

receiving, by a network device, terminal capability information sent by a terminal, the terminal capability information being used for indicating a parallel processing capability of the terminal for signals sent and/or received by at least two subcarriers with different subcarrier spacings, and/or used for indicating a data buffer capability of the terminal;

wherein the terminal capability information comprises at least one of the following:

uplink subcarrier spacing and uplink bandwidth supported by the terminal for sending signals in parallel, at least two of the uplink subcarrier spacing being different; and,

downlink subcarrier spacing and downlink bandwidth supported by the terminal for receiving signals in parallel, at least two of the downlink subcarrier spacing being different;

wherein before receiving, by the network device, the terminal capability information sent by the terminal, the method further comprises:

sending, by the network device, first uplink subcarrier spacing and first uplink bandwidth and/or first downlink subcarrier spacing and first downlink bandwidth supported by a camped cell to the terminal;

wherein receiving, by the network device, the terminal capability information sent by the terminal comprises:

receiving, by the network device, the terminal capability information sent by the terminal, the terminal capability information comprising: second uplink subcarrier spacing and second uplink bandwidth, and/or second downlink subcarrier spacing and second downlink bandwidth;

wherein the camped cell is a cell in which the terminal camps currently, the second uplink subcarrier spacing and the second uplink bandwidth are a subset of the first uplink subcarrier spacing and the first uplink bandwidth, and the second downlink subcarrier spacing and the second downlink bandwidth are a subset of the first downlink subcarrier spacing and first downlink bandwidth.

5. The method according to claim 4, wherein sending, by the network device, the first uplink subcarrier spacing and the first uplink bandwidth and/or the first downlink subcarrier spacing and the first downlink bandwidth, comprises:

sending, by the network device, system information, a predetermined system information block in the system information carrying the first uplink subcarrier spacing and the first uplink bandwidth and/or the first downlink subcarrier spacing and the first downlink bandwidth.

6. The method according to claim 4, wherein the method further comprises:

sending, by the network device, a terminal capability enquiry.

7. The method according to claim 4, wherein the method further comprises:

scheduling, by the network device, uplink transmission and/or downlink transmission of the terminal according to the terminal capability information.

8. An apparatus in a communication device, comprising:

a processor configured to generate terminal capability information, the terminal capability information being used for indicating a parallel processing capability of the terminal for signals sent and/or received by at least two subcarriers with different subcarrier spacings and/or used for indicating a data buffer capability of the terminal;

a sender configured to send the terminal capability information to a network device; and
a receiver;

wherein the terminal capability information comprises at least one of the following:

uplink subcarrier spacing and uplink bandwidth supported by the terminal for
sending signals in parallel, at least two of the uplink subcarrier spacing are different; and

downlink subcarrier spacing and downlink bandwidth supported by the terminal
for receiving signals in parallel, at least two of the downlink subcarrier spacing are different;

wherein the receiver is configured to receive first uplink subcarrier spacing and first
uplink bandwidth and/or first downlink subcarrier spacing and first downlink bandwidth
supported by a camped cell sent by the network device; and

wherein the processor is configured to generate the terminal capability information, the
terminal capability information comprising: second uplink subcarrier spacing and second
uplink bandwidth, and/or second downlink subcarrier spacing and second downlink
bandwidth;

wherein the camped cell is a cell in which the terminal camps currently, the second
uplink subcarrier spacing and the second uplink bandwidth are a subset of the first uplink
subcarrier spacing and the first uplink bandwidth, and the second downlink subcarrier
spacing and the second downlink bandwidth are a subset of the first downlink subcarrier
spacing and first downlink bandwidth.

9. The apparatus according to claim 8, wherein the processor is further configured to
obtain system information; and

retrieve the first uplink subcarrier spacing and the first uplink bandwidth, and/or the first
downlink subcarrier spacing and the first downlink bandwidth from a predetermined system
information block in the system information.

10. The apparatus according to claim 8, wherein the processor is further configured to
obtain a terminal capability enquiry.

11. An apparatus in a communication device, comprising:

a receiver configured to receive terminal capability information sent by a terminal, the terminal capability information being used for indicating a parallel processing capability of the terminal for signals sent and/or received by at least two subcarriers with different subcarrier spacings, and/or used for indicating a data buffer capability of the terminal;

a sender;

wherein the terminal capability information comprises at least one of the following:

uplink subcarrier spacing and uplink bandwidth supported by the terminal for sending signals in parallel, at least two of the uplink subcarrier spacing being different; and,

downlink subcarrier spacing and downlink bandwidth supported by the terminal for receiving signals in parallel, at least two of the downlink subcarrier spacing being different;

wherein the sender is configured to send first uplink subcarrier spacing and first uplink bandwidth and/or first downlink subcarrier spacing and first downlink bandwidth supported by a camped cell to the terminal; and

wherein the receiver is configured to receive the terminal capability information sent by the terminal, the terminal capability information comprising: second uplink subcarrier spacing and second uplink bandwidth, and/or second downlink subcarrier spacing and second downlink bandwidth;

wherein the camped cell is a cell in which the terminal camps currently, the second uplink subcarrier spacing and the second uplink bandwidth are a subset of the first uplink subcarrier spacing and the first uplink bandwidth, and the second downlink subcarrier spacing and the second downlink bandwidth are a subset of the first downlink subcarrier spacing and first downlink bandwidth.

12. The apparatus according to claim 11, wherein the sender is configured to output system information, and a predetermined system information block in the system information carries the first uplink subcarrier spacing and the first uplink bandwidth, and/or the first downlink subcarrier spacing and the first downlink bandwidth.

13. The apparatus according to claim 11, wherein the sender is further configured to output a terminal capability enquiry.

14. The apparatus according to claim 11,
wherein the sender is configured to schedule uplink transmission and/or downlink transmission of the terminal according to the terminal capability information.