

CLAIMS

What is claimed is:

1. A reference signal (RS) sending method, comprising:
obtaining (201) downlink control information (DCI);
5 determining (202) first time information based on the DCI;
determining (203), based on the first time information and a time unit in which the DCI is located, a time unit for sending an RS, wherein the DCI comprises an RS request field and a time indication field, the time indication field and a first time offset are used to determine the first time information, a value indicated in the time indication field is comprised in a second value set, the
10 second value set is a set configured by using second higher layer configuration information, and the first time offset is configured by using third higher layer configuration information, and wherein the RS request field is used to determine the RS to be sent; and
sending (204) the RS in the determined time unit for sending the RS.
2. The method according to claim 1, wherein the second value set comprises one or more
15 numerical values in {0, 1, 2, 3, 4, 5, 6, 7}.
3. The method according to claim 1 or 2, wherein
a value of at least one element in the second value set is greater than -4 and less than 5; or
a value of at least one element in the second value set is greater than 0 and less than 7; or
the second value set is related to slot format information.
- 20 4. The method according to any one of claims 1 to 3, wherein the RS is sounding reference signal (SRS).
5. A reference signal (RS) sending method, comprising:
determining (205) first time information based on downlink control information (DCI);
determining (205), based on the first time information and a time unit in which the DCI is
25 located, a time unit for receiving an RS, wherein the DCI comprises an RS request field and a time indication field, the time indication field and a first time offset are used to determine the first time information, a value indicated in the time indication field is comprised in a second value set, the second value set is a set configured by using second higher layer configuration information, and the first time offset is configured by using third higher layer configuration information, and
30 wherein the RS request field is used to determine the RS to be sent by a terminal device; and

receiving (206) the RS in the determined time unit for receiving the RS.

6. The method according to claim 5, wherein the second value set comprises one or more numerical values in {0, 1, 2, 3, 4, 5, 6, 7}.

7. The method according to claim 5 or 6, wherein

5 a value of at least one element in the second value set is greater than -4 and less than 5; or
a value of at least one element in the second value set is greater than 0 and less than 7; or
the second value set is related to slot format information.

8. The method according to any one of claims 5 to 7, wherein the RS is sounding reference signal (SRS).

10 9. A communication apparatus (1000), comprising:

a processing unit (1001), configured to: obtain downlink control information (DCI);
determine first time information based on the DCI; and determine, based on the first time
information and a time unit in which the DCI is located, a time unit for sending a reference signal
(RS), wherein the DCI comprises an RS request field and a time indication field, the time
15 indication field and a first time offset are used to determine the first time information, a value
indicated in the time indication field is comprised in a second value set, the second value set is a
set configured by using second higher layer configuration information, and the first time offset is
configured by using third higher layer configuration information, and wherein the RS request field
is used to determine the RS to be sent; and

20 a communication unit (1002), configured to send the RS in the determined time unit for
sending the RS.

10. The apparatus (1000) according to claim 9, wherein the second value set comprises one
or more numerical values in {0, 1, 2, 3, 4, 5, 6, 7}.

11. The apparatus (1000) according to claim 9 or 10, wherein a value of at least one element
25 in the second value set is greater than -4 and less than 5; or
a value of at least one element in the second value set is greater than 0 and less than 7; or
the second value set is related to slot format information.

12. The apparatus (1000) according to any one of claims 9 to 11, wherein the RS is sounding
reference signal (SRS).

30 13. A communication apparatus (1000), comprising:

a processing unit (1001), configured to determine first time information based on downlink

control information (DCI); and determine, based on the first time information and a time unit in which the DCI is located, a time unit for receiving a reference signal (RS) , wherein the DCI comprises an RS request field and a time indication field, the time indication field and a first time offset are used to determine the first time information, a value indicated in the time indication field is comprised in a second value set, the second value set is a set configured by using second higher layer configuration information, and the first time offset is configured by using third higher layer configuration information, and wherein the RS request field is used to determine the RS to be sent by a terminal device; and

a communication unit (1002), configured to receive the RS in the determined time unit for receiving the RS.

14. The apparatus (1000) according to claim 13, wherein the second value set comprises one or more numerical values in {0, 1, 2, 3, 4, 5, 6, 7}.

15. The apparatus (1000) according to claim 13 or 14, wherein

a value of at least one element in the second value set is greater than -4 and less than 5; or

a value of at least one element in the second value set is greater than 0 and less than 7; or

the second value set is related to slot format information.

16. The apparatus (1000) according to any one of claims 13 to 15, wherein the RS is sounding reference signal (SRS).

17. A communication apparatus, comprising: a processor and a memory, wherein

the memory is configured to store a computer program; and

the processor is configured to execute the computer program stored in the memory, so that the apparatus performs the method according to any one of claims 1 to 8.

18. A communication apparatus, comprising at least one processor and an interface, wherein the at least one processor is configured to execute a computer program, so that the apparatus performs the method according to any one of claims 1 to 8.

19. A computer-readable storage medium, configured to store a computer program, wherein when the computer program runs on a computer, the computer is enabled to perform the method according to any one of claims 1 to 8.

20. A computer program product comprising instructions, wherein when the computer program product runs on a communication device, the communication device is enabled to perform the method according to any one of claims 1 to 8.

21. A communication chip comprising at least one processor, wherein the at least one processor is coupled with at least one memory that stores computer instructions, that when executed by the at least one processor, cause the communications chip to perform the method according to any one of claims 1 to 8.