

CLAIMS

- 5 1. A method for transmitting a reference signal, comprising:
determining at least one time-domain resource unit for transmitting a reference
signal; and
transmitting the reference signal on the at least one time-domain resource unit.
- 10 2. The method of claim 1, wherein the at least one time-domain resource unit is not
configured to transmit at least one of control information or data.
3. The method of claim 1 or 2, wherein the method is executed by a terminal device,
and determining the at least one time-domain resource unit comprises:
- 15 receiving, by the terminal device, resource information carried in high-layer
signaling or resource information carried in Downlink Control Information (DCI)
from a network device, the resource information comprising at least one of a position
of the at least one time-domain resource unit or a number of the at least one time-
domain resource unit; and
- 20 determining, by the terminal device according to the resource information, the
at least one time-domain resource unit.
4. The method of claim 1 or 2, wherein the method is executed by a network device,
and after determining the at least one time-domain resource unit, the method further
- 25 comprises:
sending, by the network device, resource information carried in high-layer
signaling or resource information carried in DCI to a terminal device, the resource
information comprising at least one of a position of the at least one time-domain
resource unit or a number of the at least one time-domain resource unit.
- 30 5. The method of any one of claims 1-4, wherein a slot or subframe comprising the at
least one time-domain resource unit is further configured to transmit at least one of
control information or data.

6. The method of claim 5, wherein determining the at least one time-domain resource unit for transmitting the reference signal comprises:

determining a position of the at least one time-domain resource unit according to at least one of a position of a time-domain resource unit for transmitting the control information or a position of a time-domain resource unit for transmitting the data.

7. The method of claim 5 or 6, wherein the at least one time-domain resource unit is located before the time-domain resource unit for transmitting the control information; or

the at least one time-domain resource unit is located before the time-domain resource unit for transmitting the data; or

the at least one time-domain resource unit is located after the time-domain resource unit for transmitting the control information and located before the time-domain resource unit for transmitting the data; or

the at least one time-domain resource unit is at a starting position of the slot or subframe comprising the at least one time-domain resource unit.

8. The method of any one of claims 1-7, wherein the at least one time-domain resource unit is configured to transmit multiple types of reference signals, and different types of the reference signals correspond to different transmission parameters and the transmission parameter comprises at least one of:

a subcarrier spacing for transmission of the reference signal, a transmission bandwidth for transmission of the reference signal, a precoding matrix for precoding the reference signal or a beam parameter for beamforming the reference signal.

9. The method of any one of claims 1-8, wherein the time-domain resource unit is an Orthogonal Frequency Division Multiplexing (OFDM) symbol.

10. The method of any one of claims 1-9, wherein the reference signal is at least one of the following types:

a Channel State Information Reference Signal (CSI-RS), a Demodulation Reference Signal (DMRS), a Sounding Reference Signal (SRS), a Phase Tracking Reference Signal (PTRS) or a Beam-specific Reference Signal (BRS).

11. A communication device, comprising:

a determination unit, configured to determine at least one time-domain resource unit for transmitting a reference signal; and

5 a transmission unit, configured to transmit the reference signal on the at least one time-domain resource unit determined by the determination unit.

12. The communication device of claim 11, wherein the at least one time-domain resource unit is not configured to at least one of transmit control information or data.

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13. The communication device of claim 11 or 12, wherein the communication device is a terminal device, and the transmission unit is further configured to:

receive resource information carried in high-layer signaling or resource information carried in Downlink Control Information (DCI) from a network device,
15 the resource information comprising at least one of a position of the at least one time-domain resource unit or a number of the at least one time-domain resource unit.

14. The communication device of claim 11 or 12, wherein the communication device is a network device, and the transmission unit is further configured to:

20 after the at least one time-domain resource unit is determined, send resource information carried in high-layer signaling or resource information carried in DCI to a terminal device, the resource information comprising at least one of a position of the at least one time-domain resource unit or a number of the at least one time-domain resource unit.

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15. The communication device of any one of claims 11-14, wherein a slot or subframe comprising the at least one time-domain resource unit is further configured to transmit at least one of control information or data.

30 16. The communication device of claim 15, wherein the determination unit is specifically configured to:

determine a position of the at least one time-domain resource unit according to at least one of a position of a time-domain resource unit for transmitting the control

information or a position of a time-domain resource unit for transmitting the data.

17. The communication device of claim 15 or 16, wherein the at least one time-domain resource unit is located before the time-domain resource unit for transmitting

5 the control information; or

the at least one time-domain resource unit is located before the time-domain resource unit for transmitting the data; or

the at least one time-domain resource unit is located after the time-domain resource unit for transmitting the control information and located before the time-domain resource unit for transmitting the data; or

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the at least one time-domain resource unit is at a starting position of the slot or subframe comprising the at least one time-domain resource unit.

18. The communication device of any one of claims 11-17, wherein the at least one time-domain resource unit is configured to transmit multiple types of reference signals, and different types of the reference signals correspond to different transmission parameters and the transmission parameter comprises at least one of:

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a subcarrier spacing for transmission of the reference signal, a transmission bandwidth for transmission of the reference signal, a precoding matrix for precoding the reference signal or a beam parameter for beamforming the reference signal.

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19. The communication device of any one of claims 11-18, wherein the time-domain resource unit is an Orthogonal Frequency Division Multiplexing (OFDM) symbol.

20. The communication device of any one of claims 11-19, wherein the reference signal is at least one of the following types:

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a Channel State Information Reference Signal (CSI-RS), a Demodulation Reference Signal (DMRS), a Sounding Reference Signal (SRS), a Phase Tracking Reference Signal (PTRS) or a Beam-specific Reference Signal (BRS).