

## CLAIMS

1. A method for a reference signal transmission, comprising:

determining, by a network device, a target resource configured to transmit a  
5 reference signal, the target resource being part of transmission resources available for  
transmission of the reference signal and the target resource comprising at least one of  
a time-domain resource or a space-domain resource; and

transmitting, by the network device, the reference signal to a terminal device  
on the target resource;

10 the method further comprising:

transmitting, by the network device, indication information to the terminal  
device, the indication information comprising identifier indication information  
configured to indicate the resource identifier, and the resource identifier  
corresponding to the target resource one to one,

15 wherein the resource identifier comprises at least one of the following  
identifiers:

a time-domain resource identifier configured to indicate the time-domain  
resource and a time-domain resource period, a space-domain resource identifier  
configured to indicate the space-domain resource or a combined resource identifier  
20 configured to indicate the time-domain resource and the space-domain resource.

2. The method of claim 1, wherein determining, by the network device, the target  
resource configured to transmit the reference signal comprises:

25 determining, by the network device, a reference identifier, the reference  
identifier comprising a cell identifier or a beam identifier; and

determining, by the network device, the target resource configured to transmit  
the reference signal according to the reference identifier and a correspondence  
between a reference identifier and a resource identifier, the resource identifier  
corresponding to the target resource one to one.

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3. The method of claim 1, wherein transmitting, by the network device, the indication  
information to the terminal device comprises:

transmitting, by the network device, the indication information carried in high-

layer signaling, physical-layer signaling or a Media Access Control (MAC)-layer notification to the terminal device.

4. The method of claim 1-3, when the target resource comprises the time-domain resource, the time-domain resource comprises at least one time bucket and/or at least one time point and, the at least one time bucket and/or the at least one time point are/is periodically distributed.

5. A method for a reference signal reception, comprising:

determining, by a terminal device, a target resource configured to transmit a reference signal, the target resource being part of transmission resources available for transmission of the reference signal and the target resource comprising at least one of a time-domain resource or a space-domain resource; and

receiving, by the terminal device, the reference signal sent by a network device on the target resource;

wherein determining, by the terminal device, the target resource configured to transmit the reference signal comprises:

receiving, by the terminal device, indication information sent by the network device, the indication information comprising identifier indication information configured to indicate a resource identifier; and

determining, by the terminal device, the target resource corresponding to the resource identifier one to one according to the identifier indication information; wherein the resource identifier comprises at least one of the following identifiers:

a time-domain resource identifier configured to indicate the time-domain resource and a time-domain resource period, a space-domain resource identifier configured to indicate the space-domain resource or a combined resource identifier configured to indicate the time-domain resource and the space-domain resource.

6. The method of claim 5, wherein determining, by the terminal device, the target resource configured to transmit the reference signal comprises:

determining, by the terminal device, a reference identifier, the reference identifier comprising a cell identifier or a beam identifier; and

determining, by the terminal device, the target resource configured to transmit

the reference signal according to the reference identifier and a correspondence between a reference identifier and a resource identifier, the resource identifier corresponding to the target resource one to one.

- 5     7. The method of claim 5, wherein receiving, by the terminal device, the indication information sent by the network device comprises:

receiving, by the terminal device, the indication information carried in high-layer signaling, physical-layer signaling or a Media Access Control (MAC)-layer notification from the network device.

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8. The method of any one of claims 5-7, when the target resource comprises the time-domain resource, the time-domain resource comprises at least one time bucket and/or at least one time point and, the at least one time bucket and/or the at least one time point are/is periodically distributed.

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9. A terminal device, comprising:

a determination module, configured to determine a target resource configured to transmit a reference signal, the target resource being part of transmission resources available for transmission of the reference signal and the target resource comprising at least one of a time-domain resource or a space-domain resource; and

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a receiving module, configured to:

receive the reference signal sent by a network device on the target resource determined by the determination module;

wherein the receiving module is further configured to: receive indication information sent by the network device, the indication information comprising identifier indication information configured to indicate a resource identifier; and

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the determination module is further configured to: determine the target resource corresponding to the resource identifier one to one according to the identifier indication information;

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wherein the resource identifier comprises at least one of the following identifiers:

a time-domain resource identifier configured to indicate the time-domain resource and a time-domain resource period, a space-domain resource identifier

configured to indicate the space-domain resource or a combined resource identifier configured to indicate the time-domain resource and the space-domain resource.

10. The terminal device of claim 9, wherein the determination module is specifically  
5 configured to:

determine a reference identifier, the reference identifier comprising a cell identifier or a beam identifier; and

determine the target resource configured to transmit the reference signal according to the reference identifier and a correspondence between a reference  
10 identifier and a resource identifier, the resource identifier corresponding to the target resource one to one.

11. The terminal device of claim 9, wherein the receiving module is specifically configured to:

15 receive the indication information carried in high-layer signaling, physical-layer signaling or a Media Access Control (MAC)-layer notification from the network device.