CLAIMS

1. A wireless communication method, comprising:

receiving, by a terminal device from a network device, trigger signaling for triggering an aperiodic Sounding Reference Signal (SRS);

determining, by the terminal device, an SRS type of the aperiodic SRS according to the trigger signaling, wherein a determined SRS type comprises at least one of a first SRS type or a second SRS type supported by the terminal device, and wherein the aperiodic SRS with the first SRS type is used to determine at least one of a transmitting beam for an uplink signal or a receiving beam of a network device for an uplink signal; and the aperiodic SRS with the second SRS type is used to obtain scheduling information for an uplink signal;

determining, by the terminal device according to the determined SRS type, at least one of a resource or a transmission scheme for transmitting the aperiodic SRS; and

transmitting, by the terminal device, the aperiodic SRS to the network device based on at least one of a determined resource or a determined transmission scheme.

2. The method of claim 1, wherein a resource for the aperiodic SRS with the first SRS type is different from a resource for the aperiodic SRS with the second SRS type; or a transmission scheme for the aperiodic SRS with the first SRS type is different from a transmission scheme for the aperiodic SRS with the second SRS type; or a resource for the aperiodic SRS with the first SRS type is different from a resource for the aperiodic SRS with the second SRS type and a transmission scheme for the aperiodic SRS with the first SRS type is different from a transmission scheme for the aperiodic SRS with the second SRS type.

3. The method of claim 2, wherein

one transmission of the aperiodic SRS with the first SRS type is performed through a single antenna port; or

one transmission of the aperiodic SRS with the second SRS type is performed through a plurality of antenna ports; or

one transmission of the aperiodic SRS with the first SRS type is performed through a single antenna port and one transmission of the aperiodic SRS with the second

SRS type is performed through a plurality of antenna ports.

4. The method of claim 2 or 3, wherein

the aperiodic SRS with the first SRS type is transmitted multiple times; or

the aperiodic SRS with the second SRS type is transmitted one time; or

the aperiodic SRS with the first SRS type is transmitted multiple times and the aperiodic SRS of the second SRS type is transmitted one time.

5. The method of any one of claims 1-4, wherein the determined transmission scheme comprises at least one of:

a beam used to transmit the aperiodic SRS;

a number of beams used to transmit the aperiodic SRS;

an antenna port used to transmit the aperiodic SRS;

a number of antenna ports used to transmit the aperiodic SRS; or

a number of times for which the aperiodic SRS is transmitted.

6. The method of any one of claims 1-5, wherein determining the SRS type of the aperiodic SRS according to the trigger signaling comprises:

determining the type of the aperiodic SRS according to an SRS resource which is indicated by the trigger signaling and used to transmit the aperiodic SRS.

7. The method of any one of claims 1-6, wherein the trigger signaling is carried through Downlink Control Information (DCI) or Media Access Control (MAC) signaling.

8. A terminal device, comprising a processing unit and a transceiver unit, wherein

the transceiver unit is configured to receive from a network device trigger signaling for triggering an aperiodic Sounding Reference Signal (SRS);

the processing unit is configured to: determine an SRS type of the aperiodic SRS according to the trigger signaling, wherein a determined SRS type comprises at least one of a first SRS type of a second SRS type supported by the terminal device, and wherein the aperiodic SRS with the first SRS type is used to determine at least one of a transmitting beam for an uplink signal or a receiving beam of a network device for

an uplink signal; and the aperiodic SRS with the second SRS type is used to obtain scheduling information for an uplink signal; and determine, according to the determined SRS type, at least one of a resource or a transmission scheme for transmitting the aperiodic SRS; and

the transceiver unit is further configured to transmit the aperiodic SRS to the network device based on at least one of a determined resource or a determined transmission scheme.

9. The terminal device of claim 8, wherein a resource for the aperiodic SRS with the first SRS type is different from a resource for the aperiodic SRS with the second SRS type; or a transmission scheme for the aperiodic SRS with the first SRS type is different from a transmission scheme for the aperiodic SRS with the second SRS type; or a resource for the aperiodic SRS with the first SRS type is different from a resource for the aperiodic SRS with the second SRS type and a transmission scheme for the aperiodic SRS with the first SRS type is different from a transmission scheme for the aperiodic SRS with the second SRS type.

10. The terminal device of claim 9, wherein

one transmission of the aperiodic SRS with the first SRS type is performed through a single antenna port; or

one transmission of the aperiodic SRS with the second SRS type is performed through a plurality of antenna ports; or

one transmission of the aperiodic SRS with the first SRS type is performed through a single antenna port and one transmission of the aperiodic SRS with the second SRS type is performed through a plurality of antenna ports.

11. The terminal device of claim 9 or 10, wherein

the aperiodic SRS with the first SRS type is transmitted multiple times; or

the aperiodic SRS with the second SRS type is transmitted one time; or

the aperiodic SRS with the first SRS type is transmitted multiple times and the aperiodic SRS with the second SRS type is transmitted one time.

12. The terminal device of any one of claims 8-11, wherein the determined transmission scheme comprises at least one of:

a beam used to transmit the aperiodic SRS;

a number of beams used to transmit the aperiodic SRS;

an antenna port used to transmit the aperiodic SRS;

a number of antenna ports used to transmit the aperiodic SRS; or

a number of times for which the aperiodic SRS is transmitted.

13. The terminal device of any one of claims 8-12, wherein the processing unit is further configured to:

determine the type of the aperiodic SRS according to an SRS resource which is indicated by the trigger signaling and used to transmit the aperiodic SRS.

14. The terminal device of any one of claims 8-13, wherein the trigger signaling is carried through Downlink Control Information (DCI) or Media Access Control (MAC) signaling.

15. A wireless communication method, comprising:

generating, by a network device, trigger signaling for triggering a Sounding Reference Signal (SRS), the trigger signaling being used for determining a SRS type of an aperiodic SRS, wherein the SRS type of the aperiodic SRS comprises at least one of a first SRS type or a second SRS type supported by a terminal device, and wherein the aperiodic SRS with the first SRS type is used by the terminal device to determine at least one of a transmitting beam for an uplink signal or a receiving beam of a network device for an uplink signal, and the aperiodic SRS with the second SRS type is used by the terminal device to obtain scheduling information for an uplink signal;

transmitting, by the network device, the trigger signaling to the terminal device; and

receiving, by the network device, the aperiodic SRS from the terminal device.

16. The method of claim 15, wherein a resource for the aperiodic SRS with the first SRS type is different from a resource for the aperiodic SRS with the second SRS type; or a transmission scheme for the aperiodic SRS with the first SRS type is different from

a transmission scheme for the aperiodic SRS with the second SRS type; or a resource for the aperiodic SRS with the first SRS type is different from a resource for the aperiodic SRS with the second SRS type and a transmission scheme for the aperiodic SRS with the first SRS type is different from a transmission scheme for the aperiodic SRS with the second SRS type.

17. The method of claim 15 or 16, wherein the trigger signaling is carried through Downlink Control Information (DCI) or Media Access Control (MAC) signaling.

18. A network device, comprising a processing unit and a transceiver unit, wherein

the processing unit is configured to generate trigger signaling for triggering a Sounding Reference Signal (SRS), the trigger signaling being used for determining a SRS type of an aperiodic SRS, wherein the SRS type of the aperiodic SRS comprises at least one of a first SRS type or a second SRS type supported by a terminal device, and wherein the aperiodic SRS with the first SRS type is used by the terminal device to determine at least one of a transmitting beam for an uplink signal or a receiving beam of a network device for an uplink signal, and the aperiodic SRS with the second SRS type is used by the terminal device to obtain scheduling information for an uplink signal;

the transceiver unit is further configured to: transmit the trigger signaling to the terminal device; and receive the aperiodic SRS from the terminal device.

19. The network device of claim 18, wherein a resource for the aperiodic SRS with the first SRS type is different from a resource for the aperiodic SRS with the second SRS type; or a transmission scheme for the aperiodic SRS with the first SRS type is different from a transmission scheme for the aperiodic SRS with the second SRS type; or a resource for the aperiodic SRS with the first SRS type is different from a resource for the aperiodic SRS with the second SRS type and a transmission scheme for the aperiodic SRS with the first SRS type is different from a transmission scheme for the aperiodic SRS with the second SRS type.

20. The network device of claim 18 or 19, wherein the trigger signaling is carried through Downlink Control Information (DCI) or Media Access Control (MAC)

signaling.