

CLAIMS

1. An uplink-signal-based processing method, implemented by a network device, the method comprising:

configuring for a terminal two aperiodic sounding reference signal (SRS) resource sets for antenna switching,

wherein, during configuring the two aperiodic SRS resource sets, the method further comprises ~~at least one of~~:

configuring the two aperiodic SRS resource sets with same values of higher layer parameter aperiodicSRS-ResourceTrigger; or

configuring the two aperiodic SRS resource sets with same values of higher layer parameter aperiodicSRS-ResourceTrigger, and configuring the two aperiodic SRS resource sets with different values of higher layer parameter slotoffset.

2. The uplink-signal-based processing method of claim 1, wherein

the two aperiodic SRS resource sets comprise a total of four SRS resources, the four SRS resources are transmitted in different orthogonal frequency division multiplexing (OFDM) symbols of two different slots, a SRS port of each SRS resource in the two aperiodic SRS resource sets being associated with a different antenna port of the terminal.

3. The uplink-signal-based processing method of claim 1, wherein the two aperiodic SRS resource sets are triggered by a piece of downlink control information (DCI).

4. The uplink-signal-based processing method of claim 1, wherein the two aperiodic SRS resource sets are triggered by two pieces of DCI, respectively.

5. The uplink-signal-based processing method of claim 1, wherein, during configuring the two aperiodic SRS resource sets, the method further comprises:

configuring each of the two aperiodic SRS resource sets with two SRS resources.

6. The uplink-signal-based processing method of claim 1, wherein, during configuring the two aperiodic SRS resource sets, the method further comprises:

configuring one of the two aperiodic SRS resource sets with one SRS resource, and configuring the other of the two aperiodic SRS resource sets with three SRS resources.

7. The uplink-signal-based processing method of claim 1, wherein

when higher layer parameters Usage of both the two aperiodic SRS resource sets are set to be antenna switching, the two aperiodic SRS resource sets are used for four-port antenna switching.

8. An uplink-signal-based processing method, implemented by a terminal, the method comprising:

performing antenna switching using two aperiodic sounding reference signal (SRS) resource sets configured by a network device,

wherein the two aperiodic SRS resource sets are configured with ~~at least one of:~~

two same values of higher layer parameter aperiodicSRS-ResourceTrigger; or

two same values of higher layer parameter aperiodicSRS-ResourceTrigger, and two
different values of higher layer parameter slotoffset.

9. The uplink-signal-based processing method of claim 8, further comprising:

determining that triggered SRS resource sets are the two aperiodic SRS resource sets based on a piece of received downlink control information (DCI).

10. The uplink-signal-based processing method of claim 8, further comprising:

determining that a triggered SRS resource set is one of the two aperiodic SRS resource sets based on one piece of DCI in two pieces of received DCI, and determining that another triggered SRS resource set is the other aperiodic SRS resource set in the two aperiodic SRS resource sets based on the other DCI in the two pieces of received DCI.

11. The uplink-signal-based processing method of claim 8, wherein

when higher layer parameters Usage of the two aperiodic SRS resource sets are set to be antenna switching, determining that triggered aperiodic SRS resource sets are configured for four-port antenna switching.

12. An uplink-signal-based processing apparatus, comprising:

a configuration unit, configured to configure for a terminal two aperiodic sounding reference signal (SRS) resource sets for antenna switching,

wherein the configuration unit is further configured to execute ~~at least one of the~~ following operations:

configuring the two aperiodic SRS resource sets with same values of higher layer parameter aperiodicSRS-ResourceTrigger; or

configuring the two aperiodic SRS resource sets with same values of higher layer parameter aperiodicSRS-ResourceTrigger, and configuring the two aperiodic SRS resource sets with different values of higher layer parameter slotoffset.

13. The uplink-signal-based processing apparatus of claim 12, wherein

the two aperiodic SRS resource sets comprise a total of four SRS resources, the four SRS resources are transmitted in different orthogonal frequency division multiplexing (OFDM) symbols of two different slots, a SRS port of each SRS resource in the two aperiodic SRS resource sets being associated with a different antenna port of the terminal.

14. The uplink-signal-based processing apparatus of claim 12, wherein the two aperiodic SRS resource sets are triggered by a piece of downlink control information (DCI).

15. The uplink-signal-based processing apparatus of claim 12, wherein the two aperiodic SRS resource sets are triggered by two pieces of DCI, respectively.

16. The uplink-signal-based processing apparatus of claim 12, wherein the configuration unit is further configured to:

configure each of the two aperiodic SRS resource sets with two SRS resources; or,

configure one of the two aperiodic SRS resource sets with one SRS resource and configure the other of the two aperiodic SRS resource sets with three SRS resources.

17. The uplink-signal-based processing apparatus of claim 12, wherein

when higher layer parameters Usage of both the two aperiodic SRS resource sets are set to be antenna switching, the two aperiodic SRS resource sets are used for four-port antenna switching.

18. An uplink-signal-based processing apparatus, comprising:

a transmission unit, configured to perform antenna switching using two aperiodic sounding reference signal (SRS) resource sets configured by a network device,

wherein the transmission unit is further configured to determine that triggered SRS resource sets are the two aperiodic SRS resource sets based on ~~at least one of~~ the following:

two same values of higher layer parameter aperiodicSRS-ResourceTrigger; or

two same values of higher layer parameter aperiodicSRS-ResourceTrigger, and two different values of higher layer parameter slotoffset.

19. The uplink-signal-based processing apparatus of claim 18, wherein the transmission unit is further configured to:

when higher layer parameters Usage of both the two aperiodic SRS resource sets are set to be antenna switching, determine that triggered aperiodic SRS resource sets are configured for four-port antenna switching.

20. A network device, comprising:

a first communication interface; and

a first processor, configured to, through the first communication interface, configure for a terminal two aperiodic sounding reference signal (SRS) resource sets for antenna switching,

wherein the first processor is further configured to execute, through the first communication interface, the following operations:

configuring the two aperiodic SRS resource sets with same values of higher layer parameter aperiodicSRS-ResourceTrigger; or

configuring the two aperiodic SRS resource sets with same values of higher layer parameter aperiodicSRS-ResourceTrigger, and configuring the two aperiodic SRS resource sets with different values of higher layer parameter slotoffset.