

CLAIMS

What is claimed is:

1. A downlink reception triggering method, applied to a terminal and comprising:
transmitting a first uplink signal, wherein the first uplink signal is used to trigger
5 a first downlink reception.

2. The method according to claim 1, wherein there is a time-domain association
relationship between the first uplink signal and the first downlink reception;

wherein the method further comprises:

triggering, based on at least one of a type of the first uplink signal, a logical channel
10 which the first uplink signal belongs to, and a service priority of the first uplink signal,
the first downlink reception associated with the first uplink signal.

3. The method according to claim 1, wherein the first uplink signal comprises a
first indication information, the first indication information comprises at least one of an
identifier of the first downlink reception and a time-domain configuration parameter of
15 the first downlink reception, the first indication information is used to trigger M first
downlink receptions among N downlink receptions, the N downlink receptions are
configured by a network-side device or prescribed by a protocol, and both N and M are
integers greater than or equal to 1.

4. The method according to claim 3, wherein if M is greater than 1, the method
20 further comprises:

receiving first downlink control information DCI after the first uplink signal is
transmitted; and

triggering K first downlink receptions among the M first downlink receptions by
using the first DCI, wherein K is an integer greater than or equal to 1.

25 5. The method according to claim 3, wherein the time-domain configuration
parameter of the first downlink reception comprises at least one of the following:

time-domain start time of the first downlink reception;

time-domain monitoring method for the first downlink reception;

duration of the first downlink reception; and

first cycle parameter of the first downlink reception, wherein the first cycle parameter comprises at least one of length of a first cycle, on duration length of the first cycle, and start offset of the on duration of the first cycle.

5 6. The method according to claim 5, wherein the time-domain start time of the first downlink reception is any one of the following:

a reference time, wherein the reference time is an end time of a time-domain resource carrying the first uplink signal;

a first time, wherein the first time is a time that is a first time interval apart from the reference time;

10 a start time of the 1-st available downlink time-domain resource after the reference time;

a start time of a time-domain resource after expiration of a first timer, wherein the first timer is started at the reference time;

a start time of the 1-st available downlink time-domain resource after the first time;

15 and

a start time of the 1-st available downlink time-domain resource after expiration of the first timer.

7. The method according to claim 5, wherein the duration of the first downlink reception comprises any one of a first time length and a time length of the second timer.

20 8. The method according to claim 5, wherein the time-domain monitoring method for the first downlink reception comprises any one of the following:

monitoring the first downlink reception within the duration of the first downlink reception;

monitoring the first downlink reception within an on duration of each first cycle;

25 and

monitoring the first downlink reception within an on duration of each first cycle in the duration of the first downlink reception.

9. The method according to claim 8, further comprising:

stopping monitoring the first downlink reception if Q downlink receptions in the first downlink reception are not received within on durations of L consecutive first cycles, wherein $1 \leq Q \leq L$, and both L and Q are integers greater than or equal to 1.

10. The method according to claim 3, wherein if the first downlink reception
5 comprises the reception of physical downlink control channel (PDCCH), the time-domain configuration parameter of the first downlink reception comprises at least one of the following:

PDCCH blind decoding parameter;

PDCCH monitoring periodicity;

10 PDCCH monitoring offset;

PDCCH monitoring duration;

control resource set (CORESET);

search space group;

search space;

15 DCI format;

radio network temporary identifier (RNTI);

time interval between a PDCCH and a physical downlink shared channel (PDSCH)
scheduled by the PDCCH;

time interval between a PDSCH and a HARQ-ACK feedback for the PDSCH;

20 time interval between a PDCCH and a physical uplink shared channel PUSCH
scheduled by the PDCCH;

PDSCH processing delay; and

PUSCH preparation delay.

11. The method according to claim 1, further comprising:

25 receiving a first message from a network-side device, wherein the first message is
used to indicate the terminal to stop receiving at least one of the downlink reception of
the first downlink reception; or,

receiving a second message from the network-side device, wherein the second
message is used to indicate the terminal to switch the receiving cycle for the first
30 downlink reception from the first cycle to a second cycle; and the second cycle is

different from the first cycle in at least one of length, on duration length, and on duration start offset.

12. The method according to claim 1, wherein if the terminal has transmitted a second uplink signal within a duration of the first downlink reception and the second uplink signal is used to trigger a second downlink reception, the method further comprises:

performing the first downlink reception and the second downlink reception in parallel; or

performing only the second downlink reception;

10 wherein in a case of performing the first downlink reception and the second downlink reception in parallel, if the first downlink reception and the second downlink reception contend on one or more resources, the method further comprises:

on a resource under contention, performing the second downlink reception and dropping the first downlink reception; or

15 on a resource under contention, performing the first downlink reception and dropping the second downlink reception; or

on a resource under contention, determining, based on at least one of types of the first uplink signal and the second uplink signal, logical channels which the first uplink signal and the second uplink signal belong to, and service priorities of the first uplink signal and the second uplink signal, a to-be-performed downlink reception from the first downlink reception and the second downlink reception.

13. A downlink reception triggering method, applied to a network-side device and comprising:

25 receiving a first uplink signal from a terminal, wherein the first uplink signal is used to trigger a first downlink reception.

14. The method according to claim 13, wherein there is a time-domain association relationship between the first uplink signal and the first downlink reception;

wherein the method further comprises:

triggering, based on at least one of a type of the first uplink signal, a logical channel which the first uplink signal belongs to, and a service priority of the first uplink signal, the first downlink reception associated with the first uplink signal.

15. The method according to claim 13, wherein the first uplink signal comprises
5 first indication information, the first indication information comprises at least one of an identifier of the first downlink reception and a time-domain configuration parameter of the first downlink reception, the first indication information is used to trigger M first downlink receptions among N downlink receptions, the N downlink receptions are configured by the network-side device or prescribed by a protocol, and both N and M
10 are integers greater than or equal to 1.

16. The method according to claim 13, further comprising:

transmitting a first message to the terminal, wherein the first message is used to instruct the terminal to stop receiving at least one downlink reception in the first downlink reception.

15 17. The method according to claim 13, further comprising:

transmitting a second message to the terminal, wherein the second message is used to instruct the terminal to switch a receiving cycle for the first downlink reception from a first cycle to a second cycle; and the second cycle is different from the first cycle in at least one of length, on duration length, and on duration start offset.

20 18. The method according to claim 15, wherein the time-domain configuration parameter of the first downlink reception comprises at least one of the following:

time-domain start time of the first downlink reception;

time-domain monitoring method for the first downlink reception;

duration of the first downlink reception; and

25 first cycle parameter of the first downlink reception, wherein the first cycle parameter comprises at least one of length of a first cycle, on duration length of the first cycle, and start offset of the on duration of the first cycle.

19. A terminal, comprising a memory, a processor, and an instruction or program stored in the memory and capable of running on the processor, wherein when the

instruction or program is executed by the processor, the steps of the downlink reception triggering method according to any one of claims 1 to 12 are implemented.

20. A network-side device, comprising a memory, a processor, and an instruction or program stored in the memory and capable of running on the processor, wherein
- 5 when the instruction or program is executed by the processor, the steps of the downlink reception triggering method according to any one of claims 13 to 18 are implemented.