

CLAIMS

What is claimed is:

1. A method for detecting link failure of a sidelink, performed by a terminal and comprising:

transmitting target information through a sidelink, wherein the target information comprises a data packet; and

determining, if a transmission status of the target information meets a preset criterion, that no link failure occurs on the sidelink, and determining, if otherwise, that link failure occurs on the sidelink;

wherein before the step of determining, if the transmission status of the target information meets a preset criterion, that no link failure occurs on the sidelink, the method further comprises: detecting whether a transmission status of the data packet meets a second preset criterion within a time interval;

wherein the terminal is a transmit end, and the second preset criterion comprises at least one of the following:

that reception feedback information of the data packet being ACK is received or detected,
that a quantity of failed transmissions of the data packet is less than a third number, and
that a quantity of retransmissions of the data packet is less than a fourth number.

2. The method for detecting link failure of a sidelink according to claim 1, wherein that a transmission status of the data packet does not meet a second preset criterion comprises:

that no reception feedback information of one or more data packets is received or detected,
or

that reception feedback information of one or more data packets being NACK is received or detected.

3. The method for detecting link failure of a sidelink according to claim 1, wherein the time interval is a predefined or preconfigured time interval, or the time interval is a predefined or preconfigured first timer.

4. The method for detecting link failure of a sidelink according to claim 1,
wherein startup time of the first timer comprises at least one of the following:
predefined or preconfigured second time, and
time after the target information is sent.

5. The method for detecting link failure of a sidelink according to claim 1, wherein the time interval is a predefined or preconfigured first timer;

wherein a restart criterion of the first timer comprises at least one of the following:
that the transmission status of the target information meets the preset criterion, and
that a data packet other than the target information is sent.

6. The method for detecting link failure of a sidelink according to claim 1, wherein the step of transmitting target information through the sidelink comprises:

sending the target information through the sidelink according to a preset rule, wherein the preset rule comprises at least one of the following sending rules: sending in a preset time period, sending on a preset frequency, and sending on a preset beam.

7. The method for detecting link failure of a sidelink according to claim 6, wherein the preset time period is a predefined or preconfigured time interval, or the preset time period is a predefined or preconfigured second timer.

8. The method for detecting link failure of a sidelink according to claim 7, wherein startup time of the second timer comprises at least one of the following:

predefined or preconfigured third time, and
time after the target information is sent for the first time;
or,

wherein a restart criterion of the second timer comprises at least one of the following:
that the target information is sent, and
that a data packet other than the target information is sent, wherein
transmission of the target information starts when the second timer expires.

9. A terminal, comprising:

a transmission module, configured to transmit target information through a sidelink, wherein the target information comprises a data packet; and

a processing module, configured to determine, if a transmission status of the target information meets a preset criterion, that no link failure occurs on the sidelink, and determine, if otherwise, that link failure occurs on the sidelink;

wherein the terminal further comprises:

a second detection module, configured to detect whether a transmission status of the data

packet meets a second preset criterion within a time interval;

wherein the terminal is a transmit end, and the second preset criterion comprises at least one of the following:

that reception feedback information of the data packet being ACK is received or detected,
that a quantity of failed transmissions of the data packet is less than a third number, and
that a quantity of retransmissions of the data packet is less than a fourth number.

10. The terminal according to claim 9, wherein that a transmission status of the data packet does not meet a second preset criterion comprises:

that no reception feedback information of one or more data packets is received or detected,
or

that reception feedback information of one or more data packets being NACK is received or detected.

11. The terminal according to claim 9, wherein the time interval is a predefined or preconfigured time interval, or the time interval is a predefined or preconfigured first timer.

12. The terminal according to claim 9, wherein startup time of the first timer comprises at least one of the following:

predefined or preconfigured second time, and
time after the target information is sent.

13. The terminal according to claim 9, wherein the time interval is a predefined or preconfigured time interval, or the time interval is a predefined or preconfigured first timer;

wherein a restart criterion of the first timer comprises at least one of the following:

that the transmission status of the target information meets the preset criterion, and
that a data packet other than the target information is sent.

14. The terminal according to claim 9, wherein the transmission module comprises:

a sending sub-module, configured to send the target information through the sidelink according to a preset rule, wherein the preset rule comprises at least one of the following sending rules: sending in a preset time period, sending on a preset frequency, and sending on a preset beam.

15. The terminal according to claim 14, wherein the preset time period is a predefined or preconfigured time interval, or the preset time period is a predefined or preconfigured second timer.

16. The terminal according to claim 15, wherein startup time of the second timer comprises at least one of the following:

predefined or preconfigured third time, and

time after the target information is sent for the first time;

or,

wherein a restart criterion of the second timer comprises at least one of the following:

that the target information is sent; and

that a data packet other than the target information is sent, wherein

transmission of the target information starts when the second timer expires.

17. A terminal, wherein the terminal comprises a processor, a memory, and a computer program stored in the memory and running on the processor, and the processor executes the computer program to perform steps of:

transmitting target information through a sidelink, wherein the target information comprises a data packet; and

determining, if a transmission status of the target information meets a preset criterion, that no link failure occurs on the sidelink, and determining, if otherwise, that link failure occurs on the sidelink;

wherein before determining, if the transmission status of the target information meets a preset criterion, that no link failure occurs on the sidelink, the processor executes the computer program to further perform steps of:

detecting whether a transmission status of the data packet meets a second preset criterion within a time interval;

wherein the terminal is a transmit end, and the second preset criterion comprises at least one of the following:

that reception feedback information of the data packet being ACK is received or detected,

that a quantity of failed transmissions of the data packet is less than a third number, and

that a quantity of retransmissions of the data packet is less than a fourth number.

18. The terminal according to claim 17, wherein that a transmission status of the data packet does not meet a second preset criterion comprises:

that no reception feedback information of one or more data packets is received or detected,

or

that reception feedback information of one or more data packets being NACK is received or detected.

19. The terminal according to claim 17, wherein the time interval is a predefined or preconfigured time interval, or the time interval is a predefined or preconfigured first timer.

20. The terminal according to claim 17, wherein startup time of the first timer comprises at least one of the following:

predefined or preconfigured second time, and
time after the target information is sent.