WHAT IS CLAIMED IS:

1. A sidelink transmission method, comprising:

receiving, by a terminal, downlink information, wherein the downlink information is configured to indicate resource grant of a sidelink; and

controlling, by the terminal, a state of a timer related to discontinuous reception (DRX) for the sidelink based on a first event.

2. The method of claim 1, wherein the downlink information is carried by a Physical Downlink Control Channel (PDCCH).

3. The method of claim 1 or 2, wherein the timer related to the DRX comprises at least one of a round-trip time (RTT) timer or a retransmission timer.

4. The method of any one of claims 1 to 3, wherein controlling the state of the timer related to the DRX for the sidelink comprises at least one of following operations:

starting the RTT timer for the sidelink; or

in response to expiration of the RTT timer, starting the retransmission timer for the sidelink.

5. The method of any one of claims 1 to 3, wherein controlling the state of the timer related to the DRX for the sidelink comprises:

starting the retransmission timer for the sidelink.

~~6. The method of claim 4 or 5, further comprising:~~

~~determining, by the terminal, whether to start the retransmission timer for the sidelink based on feedback information.~~

~~7. The method of claim 6, wherein determining, by the terminal, whether to start the~~

~~retransmission timer for the sidelink based on the feedback information comprises at least one of following operations:~~

~~not starting the retransmission timer for the sidelink, in response to the feedback information being acknowledgement (ACK) information;~~

~~starting the retransmission timer for the sidelink, in response to the feedback information being non-acknowledgement (NACK) information;~~

~~starting the retransmission timer for the sidelink, in response to reception of the feedback information; or~~

~~not starting the retransmission timer for the sidelink, in response to no reception of the feedback information.~~

~~8. The method of any one of claims 4 to 7, wherein controlling the state of the timer related to the DRX for the sidelink comprises:~~

~~stopping a running retransmission timer for the sidelink.~~

~~9~~6. The method of any one of claims 1 to ~~8~~5, wherein the first event comprises:

receiving, by the terminal, a Physical Downlink Control Channel (PDCCH) comprising the downlink information.

~~10. The method of any one of claims 1 to 9, wherein the first event comprises:~~

~~a first time period having passed after receiving, by the terminal, the PDCCH comprising the downlink information.~~

~~11~~7. The method of any one of claims 1 to ~~10~~6, wherein the first event comprises:

transmitting, by the terminal, ~~at least one of a Physical Sidelink Control Channel (PSCCH) or~~ a Physical Sidelink Shared Channel (PSSCH).

~~12. The method of any one of claims 1 to 11, wherein the first event comprises:~~

~~a second time period having passed after transmitting, by the terminal, at least one of~~

~~the PSCCH or the PSSCH.~~

~~13. The method of any one of claims 1 to 12, wherein the first event comprises:~~

~~receiving, by the terminal, a Physical Sidelink Feedback Channel (PSFCH).~~

~~14. The method of any one of claims 1 to 13, wherein the first event comprises:~~

~~a third time period having passed after receiving, by the terminal, the PSFCH.~~

8~~15~~. The method of any one of claims 1 to ~~14~~7, wherein the first event comprises:

transmitting, by the terminal, a Physical Uplink Control Channel (PUCCH).

~~16. The method of any one of claims 1 to 15, wherein the first event comprises:~~

~~a fourth time period having passed after transmitting, by the terminal, the PUCCH.~~

~~17~~9. The method of any one of claims ~~9~~ 6 to ~~16~~8, wherein the method is performed in at least one of following conditions: the PUCCH having been configured, or the PUCCH not being configured~~, the PSFCH having been configured, the PSFCH having been used, the PSFCH not being configured, or the PSFCH not being used~~.

~~18~~10. The method of any one of claims 1 to 9~~17~~, wherein the first event has an association relationship with the conditions for performing the method.

~~19~~11. A sidelink transmission method, comprising:

receiving, by a terminal, sidelink information, wherein the sidelink information is configured to indicate resource grant of a sidelink; and

controlling, by the terminal, a state of a timer related to discontinuous reception (DRX) for the sidelink based on a first event.

~~20~~12. The method of claim ~~19~~11, wherein the sidelink information is carried by a Physical

Sidelink Control Channel (PSCCH).

~~21~~13. The method of claim ~~19~~ 11 or ~~20~~12, wherein the timer related to the DRX comprises at least one of a round-trip time (RTT) timer or a retransmission timer.

~~22~~14. The method of any one of claims ~~19~~ 11 to ~~21~~13, wherein controlling the state of the timer related to the DRX for the sidelink comprises at least one of following operations:

starting the RTT timer for the sidelink; or

in response to expiration of the RTT timer, starting the retransmission timer for the sidelink.

~~23. The method of any one of claims 19 to 22, wherein controlling the state of the timer related to the DRX for the sidelink comprises:~~

~~starting the retransmission timer for the sidelink.~~

~~24. The method of claim 22 or 23, further comprising:~~

~~determining, by the terminal, whether to start the retransmission timer for the sidelink based on feedback information.~~

~~25. The method of claim 24, wherein determining, by the terminal, whether to start the retransmission timer for the sidelink based on the feedback information comprises at least one of following operations:~~

~~not starting the retransmission timer for the sidelink, in response to the feedback information being acknowledgement (ACK) information; or~~

~~starting the retransmission timer for the sidelink, in response to the feedback information being non-acknowledgement (NACK) information.~~

~~26~~15. The method of ~~any one of claims 22 to 25~~claim 14, wherein controlling the state of the timer related to the DRX for the sidelink comprises:

stopping a running retransmission timer for the sidelink.

~~27~~16. The method of any one of claims ~~19~~ 11 to ~~26~~15, wherein the first event comprises:

receiving, by the terminal, ~~at least one of a Physical Sidelink Control Channel (PSCCH) or~~ a Physical Sidelink Shared Channel (PSSCH).

~~28. The method of any one of claims 19 to 27, wherein the first event comprises:~~

~~a fifth time period having passed after receiving, by the terminal, at least one of the PSCCH or the PSSCH.~~

~~29~~17. The method of any one of claims ~~19~~ 11 to ~~28~~16, wherein the first event comprises:

transmitting, by the terminal, a Physical Sidelink Feedback Channel (PSFCH).

~~30. The method of any one of claims 19 to 29, wherein the first event comprises:~~

~~a sixth time period having passed after transmitting, by the terminal, the PSFCH.~~

~~31~~18. The method of ~~any one of claims 27 to 30~~claim 16 or 17, wherein the method is performed in at least one of following conditions: the PSFCH having been configured, the PSFCH having been used, the PSFCH not being configured, or the PSFCH not being used.

~~32~~19. The method of any one of claims ~~19~~ 11 to ~~31~~18, wherein the first event has an association relationship with the conditions for performing the method.

~~33. A terminal, comprising:~~

~~a reception unit, configured to receive downlink information, wherein the downlink information is configured to indicate resource grant of a sidelink; and~~

~~a processing unit, configured to control a state of a timer related to discontinuous reception (DRX) for the sidelink based on a first event.~~

34. The terminal of claim 33, wherein the downlink information is carried by a Physical Downlink Control Channel (PDCCH).

35. The terminal of claim 33 or 34, wherein the timer related to the DRX comprises at least one of a round-trip time (RTT) timer or a retransmission timer.

36. The terminal of any one of claims 33 to 35, wherein the processing unit is further configured to perform at least one of following operations:

starting the RTT timer for the sidelink; or

in response to expiration of the RTT timer, starting the retransmission timer for the sidelink

37. The terminal of any one of claims 33 to 36, wherein the processing unit is further configured to start the retransmission timer for the sidelink.

38. The terminal of claim 36 or 37, wherein the processing unit is further configured to determine whether to start the retransmission timer for the sidelink based on feedback information.

39. The terminal of claim 38, wherein the processing unit is further configured to perform at least one of:

not starting the retransmission timer for the sidelink, in response to the feedback information being acknowledgement (ACK) information;

starting the retransmission timer for the sidelink, in response to the feedback information being non-acknowledgement (NACK) information;

starting the retransmission timer for the sidelink, in response to reception of the feedback information; or

not starting the retransmission timer for the sidelink, in response to non-reception of the feedback information.

40. The terminal of any one of claims 36 to 39, wherein the processing unit is further configured to stop a running retransmission timer for the sidelink.

41. The terminal of any one of claims 33 to 40, wherein the first event comprises:

receiving, by the terminal, a Physical Downlink Control Channel (PDCCH) comprising the downlink information.

42. The terminal of any one of claims 33 to 41, wherein the first event comprises:

a first time period having passed after receiving, by the terminal, the PDCCH comprising the downlink information.

43. The terminal of any one of claims 33 to 42, wherein the first event comprises:

transmitting, by the terminal, at least one of a Physical Sidelink Control Channel (PSCCH) or a Physical Sidelink Shared Channel (PSSCH).

44. The terminal of any one of claims 33 to 43, wherein the first event comprises:

a second time period having passed after transmitting, by the terminal, at least one of the PSCCH or the PSSCH.

45. The terminal of any one of claims 33 to 44, wherein the first event comprises:

receiving, by the terminal, a Physical Sidelink Feedback Channel (PSFCH).

46. The terminal of any one of claims 33 to 45, wherein the first event comprises:

a third time period having passed after receiving, by the terminal, the PSFCH.

47. The terminal of any one of claims 33 to 46, wherein the first event comprises:

transmitting, by the terminal, a Physical Uplink Control Channel (PUCCH).

48. The terminal of any one of claims 33 to 47, wherein the first event comprises:

a fourth time period having passed after transmitting, by the terminal, the PUCCH.

49. The terminal of any one of claims 41 to 48, wherein the processing unit of the terminal is run in at least one of following conditions: the PUCCH having been configured, the PUCCH not being configured, the PSFCH having been configured, the PSFCH having been used, the PSFCH not being configured, or the PSFCH not being used.

50. The terminal of any one of claims 33 to 49, wherein the first event has an association relationship with the conditions for running the processing unit of the terminal.

51. A terminal, comprising:

a reception unit, configured to receive sidelink information, wherein the sidelink information is configured to indicate resource grant of a sidelink; and

a processing unit, configured to control a state of a timer related to discontinuous reception (DRX) for the sidelink based on a first event.

52. The terminal of claim 51, wherein the sidelink information is carried by a Physical Sidelink Control Channel (PSCCH).

53. The terminal of claim 51 or 52, wherein the timer related to the DRX comprises at least one of a round-trip time (RTT) timer or a retransmission timer.

54. The terminal of any one of claims 51 to 53, wherein the processing unit is further configured to perform at least one of following operations:

starting the RTT timer for the sidelink; or

in response to expiration of the RTT timer, starting the retransmission timer for the sidelink.

55. The terminal of any one of claims 51 to 54, wherein the processing unit is further configured to start the retransmission timer for the sidelink.

56. The terminal of claim 54 or 55, wherein the processing unit is further configured to determine whether to start the retransmission timer for the sidelink based on feedback information.

57. The terminal of claim 56, wherein the processing unit is further configured to perform at least one of following operations:

not starting the retransmission timer for the sidelink, in response to the feedback information being acknowledgement (ACK) information; or

starting the retransmission timer for the sidelink, in response to the feedback information being non-acknowledgement (NACK) information.

58. The terminal of any one of claims 54 to 57, wherein the processing unit is further configured to stop a running retransmission timer for the sidelink.

59. The terminal of any one of claims 51 to 58, wherein the first event comprises:

receiving, by the terminal, at least one of a Physical Sidelink Control Channel (PSCCH) or a Physical Sidelink Shared Channel (PSSCH).

60. The terminal of any one of claims 51 to 59, wherein the first event comprises:

a fifth time period having passed after receiving, by the terminal, at least one of the PSCCH or the PSSCH.

61. The terminal of any one of claims 51 to 60, wherein the first event comprises:

transmitting, by the terminal, a Physical Sidelink Feedback Channel (PSFCH).

62. The terminal of any one of claims 51 to 61, wherein the first event comprises:

~~a sixth time period having passed after transmitting, by the terminal, the PSFCH.~~

~~63. The terminal of any one of claims 59 to 62, wherein the processing unit of the terminal is run in at least one of following conditions: the PSFCH having been configured, the PSFCH having been used, the PSFCH not being configured, or the PSFCH not being used.~~

~~64. The terminal of any one of claims 51 to 63, wherein the first event has an association relationship with the conditions for running the processing unit of the terminal.~~

~~65~~20. A terminal, comprising a processor and a memory, wherein the memory is configured to store a computer program, and the processor is configured to call and run the computer program stored in the memory to execute the method of any one of claims 1 to ~~32~~19.

~~66. A chip, comprising a processor, wherein the processor is configured to call and run a computer program from a memory to enable a device installed with the chip to execute the method of any one of claims 1 to 32.~~

~~67. A computer-readable storage medium, having stored thereon a computer program which enables a computer to execute the method of any one of claims 1 to 32.~~

~~68. A computer program product, comprising a computer program instruction which enables a computer to execute the method of any one of claims 1 to 32.~~

~~69. A computer program, configured to enable a computer to execute the method of any one of claims 1 to 32.~~