WHAT IS CLAIMED IS:

1. A positioning method, performed by a first terminal, comprising:

sending a capability request message to a second terminal, wherein the capability request message is configured to request at least one of sidelink-downlink time different of arrival (SL-DL TDOA) capability information, sidelink angle of arrival (SL-AOA) capability information, sidelink round trip time (SL-RTT) capability information or sidelink-uplink time difference of arrival (SL-UL TDOA) capability information;

receiving a capability provision message sent by the second terminal, wherein the capability provision message comprises at least one of SL-DL TDOA capability information per sidelink band, SL-AOA capability information per sidelink band, SL-RTT capability information per sidelink band, or SL-UL TDOA capability information per sidelink band;

wherein the capability provision message comprises at least one of:

positioning signal capability information corresponding to the SL-DL TDOA capability information;

positioning signal capability information corresponding to the SL-AOA capability information;

positioning signal capability information corresponding to the SL-RTT capability information;

positioning signal capability information corresponding to the SL-UL TDOA capability information;

positioning measurement capability information corresponding to the SL-DL TDOA capability information;

positioning measurement capability information corresponding to the SL-AOA capability information;

positioning measurement capability information corresponding to the SL-RTT capability information; or

positioning measurement capability information corresponding to the SL-UL TDOA capability information.

2. The method of claim 1, further comprising:

sending a positioning assistance information request message to the second terminal, wherein the positioning assistance information request message is configured to request the second terminal to provide first positioning assistance information;

receiving the first positioning assistance information;

sending a position information request message to the second terminal, wherein the position information request message is configured to request the second terminal to provide a measurement result for measuring positioning information of the second terminal;

receiving the measurement result; and

determining the position information of the second terminal based on the first positioning assistance information and the measurement result.

3. The method of claim 1, further comprising:

sending second positioning assistance information to the second terminal, wherein the second positioning assistance information is configured to assist the second terminal in determining the position information of the second terminal.

4. The method of claim 1, wherein the positioning signal capability information corresponding to the SL-RTT capability information comprises:

first RTT capability information corresponding to sending a positioning reference signal by the second terminal; and

second RTT capability information corresponding to receiving a positioning reference signal by the second terminal;

wherein the first RTT capability information comprises at least one of:

first capability information of the second terminal in each sidelink frequency band, the fist capability information comprising a list of bandwidth supported by the second terminal in each sidelink frequency band; or

second capability information of the second terminal in each sidelink carrier aggregation combination, the second capability information comprising a maximum number of configurable positioning reference signal resources supported by the second terminal on each bandwidth part (BWP);

wherein the second RTT capability information comprises at least one of:

sidelink frequency band information supported by the second terminal; or

sidelink frequency band combination information supported by the second terminal.

5. The method of claim 1 or 4, wherein the positioning signal capability information corresponding to at least one of the SL-AOA capability information or the SL-UL TDOA capability information comprises at least one of:

sidelink frequency band information supported by the second terminal; or

sidelink frequency band combination information supported by the second terminal.

6. The method of claim 4 or 5, wherein the sidelink frequency band information supported by the second terminal comprises at least one of:

a maximum number of reference signal resources supported by the second terminal on each resource set in each sidelink frequency band; or

a list of bandwidth supported by the second terminal in each sidelink frequency band.

7. The method of any of claims 1-6, wherein the positioning signal capability information corresponding to the SL-DL TDOA capability information comprises:

third capability information of sidelink frequency bands supported by the second terminal, the third capability information comprising a list of bandwidth supported by the second terminal on each sidelink frequency band; or

fourth capability information of sidelink carrier aggregation combinations supported by the second terminal, the fourth capability information comprising a maximum number of configurable positioning reference signal resources supported by the second terminal on each BWP.

8. The method of any of claims 1-7, wherein the positioning measurement capability information corresponding to the SL-RTT capability information comprises:

a maximum number of reception and transmission time difference measurement quantities supported by the second terminal in each sidelink frequency range; and

whether the second terminal supports measuring a reference signal receiving power (RSRP) in each sidelink frequency band.

9. The method of any of claims 1-8, wherein the positioning measurement capability information corresponding to the SL-AOA capability information comprises:

a maximum number of arrival angle measurement quantities supported by the second terminal in each sidelink frequency range; and

a first frequency band list indicating arrival angle measurement capability, wherein the first frequency band list indicates for each sidelink frequency band, whether the second terminal supports measuring both an arrival angle and at least one first measurement quantity, the first measurement quantity being different from the arrival angle.

10. The method of any of claims 1-9, wherein the positioning measurement capability information corresponding to the SL-DL TDOA capability information comprises:

a maximum number of relative duration measurement quantities supported by the

second terminal in each sidelink frequency range, wherein the relative duration refers to a time difference between a start time point of receiving a positioning signal by the second terminal and a preconfigured reference time point; and

whether the second terminal supports measuring a RSRP in each sidelink frequency range.

11. The method of any of claims 1-10, wherein the positioning measurement capability information corresponding to the SL-UL TDOA capability information comprises:

a maximum number of carrier phase measurement quantities supported by the second terminal in each sidelink frequency range; and

a third frequency band list indicating carrier phase measurement capability, wherein the third frequency band list indicates for each sidelink frequency band, whether the second terminal supports measuring both a carrier phase and at least one third measurement quantity, the third measurement quantity being different from the carrier phase.

12. A positioning method, performed by a second terminal, and comprising:

receiving a capability request message sent by a first terminal, wherein the capability request message is configured to request at least one of sidelink-downlink time different of arrival (SL-DL TDOA) capability information, sidelink angle of arrival (SL-AOA) capability information, sidelink round trip time (SL-RTT) capability information or sidelink-uplink time difference of arrival (SL-UL TDOA) capability information;

sending a capability provision message to the first terminal, wherein the capability provision message comprises at least one of SL-DL TDOA capability information per sidelink band, SL-AOA capability information per sidelink band, SL-RTT capability information per sidelink band, or SL-UL TDOA capability information per sidelink band;

wherein the capability provision message comprises at least one of:

positioning signal capability information corresponding to the SL-DL TDOA capability information;

positioning signal capability information corresponding to the SL-AOA capability information;

positioning signal capability information corresponding to the SL-RTT capability information;

positioning signal capability information corresponding to the SL-UL TDOA capability information;

positioning measurement capability information corresponding to the SL-DL TDOA capability information;

positioning measurement capability information corresponding to the SL-AOA capability information;

positioning measurement capability information corresponding to the SL-RTT capability information; or

positioning measurement capability information corresponding to the SL-UL TDOA capability information.

13. The method of claim 12, further comprising:

receiving a positioning assistance information request message sent by the first terminal, wherein the positioning assistance information request message is configured to request the second terminal to provide first positioning assistance information;

sending first positioning assistance information to the first terminal;

receiving a position information request message sent by the first terminal, wherein the position information request message is configured to request the second terminal to provide a measurement result for measuring position information of the second terminal; and

sending the measurement result to the first terminal.

14. The method of claim 12, further comprising:

receiving second positioning assistance information sent by the first terminal, wherein the second positioning assistance information is configured to assist the second terminal in determining the position information of the second terminal.

15. The method of claim 12, wherein the positioning signal capability information corresponding to the SL-RTT capability information comprises:

first RTT capability information corresponding to sending a positioning reference signal by the second terminal; and

second RTT capability information corresponding to receiving a positioning reference signal by the second terminal;

wherein the first RTT capability information comprises at least one of:

first capability information of the second terminal in each sidelink frequency band, the fist capability information comprising a list of bandwidth supported by the second terminal in each sidelink frequency band; or

second capability information of the second terminal in each sidelink carrier

aggregation combination, the second capability information comprising a maximum number of configurable positioning reference signal resources supported by the second terminal on each bandwidth part (BWP);

wherein the second RTT capability information comprises at least one of:

sidelink frequency band information supported by the second terminal; or

sidelink frequency band combination information supported by the second terminal.

16. The method of claim 12 or 15, wherein the positioning signal capability information corresponding to at least one of the SL-AOA capability information or the SL-UL TDOA capability information comprises at least one of:

sidelink frequency band information supported by the second terminal; or

sidelink frequency band combination information supported by the second terminal.

17. The method of claim 15 or 16, wherein the sidelink frequency band information supported by the second terminal comprises at least one of:

a maximum number of reference signal resources supported by the second terminal on each resource set in each sidelink frequency band; or

a list of bandwidth supported by the second terminal in each sidelink frequency band.

18. The method of any of claims 12-17, wherein the positioning signal capability information corresponding to the SL-DL TDOA capability information comprises：

third capability information of sidelink frequency bands supported by the second terminal, the third capability information comprising a list of bandwidth supported by the second terminal on each sidelink frequency band; and

fourth capability information of sidelink carrier aggregation combinations supported by the second terminal, the fourth capability information comprising a maximum number of configurable positioning reference signal resources supported by the second terminal on each BWP.

19. The method of any of claims 12-18, wherein the positioning measurement capability information corresponding to the SL-RTT capability information comprises:

a maximum number of reception and transmission time difference measurement quantities supported by the second terminal in each sidelink frequency range; and

whether the second terminal supports measuring a reference signal receiving power (RSRP) in each sidelink frequency band.

20. The method of any of claims 12-19, wherein the positioning measurement capability

information corresponding to the SL-AOA capability information comprises:

a maximum number of arrival angle measurement quantities supported by the second terminal in each sidelink frequency range; and

a first frequency band list indicating arrival angle measurement capability, wherein the first frequency band list indicates for each sidelink frequency band, whether the second terminal supports measuring both an arrival angle and at least one first measurement quantity, the first measurement quantity being different from the arrival angle.

21. The method of any of claims 12-20, wherein the positioning measurement capability information corresponding to the SL-DL TDOA capability information comprises:

a maximum number of relative duration measurement quantities supported by the second terminal in each sidelink frequency range, wherein the relative duration refers to a time difference between a start time point of receiving a positioning signal by the second terminal and a preconfigured reference time point; and

whether the second terminal supports measuring a RSRP in each sidelink frequency range.

22. The method of any of claims 12-21, wherein the positioning measurement capability information corresponding to the SL-UL TDOA capability information comprises:

a maximum number of carrier phase measurement quantities supported by the second terminal in each sidelink frequency range; and

a third frequency band list indicating carrier phase measurement capability, wherein the third frequency band list indicates for each sidelink frequency band, whether the second terminal supports measuring both a carrier phase and at least one third measurement quantity, the third measurement quantity being different from the carrier phase.

23. A terminal, comprising:

a processor; and

a memory, configured to store instructions executable by the processor,

wherein the processor is configured to execute the positioning method of any one of claims 1-11 or the positioning method of any of claims 12-22.