WHAT IS CLAIMED IS:

1. A communication method, performed by a terminal and comprising:

determining a first decoding mode for downlink control information;

wherein the downlink control information is downlink control information received on one or more candidate physical downlink control channels in one or more beam directions;

the first decoding mode comprises at least one of following:

performing individual decoding on the downlink control information received on the one or more candidate physical downlink control channels;

performing combined decoding on the downlink control information received on the one or more candidate physical downlink control channels;

wherein determining the first decoding mode for the downlink control information comprises:

determining the first decoding mode for the downlink control information based on a first signaling;

wherein the first signaling is configured to indicate a first time-frequency resource of at least one candidate physical downlink control channel or a second time-frequency resource of at least one candidate physical downlink control channel;

the first time-frequency resource is a time-frequency resource of a candidate physical downlink control channel for a transmission mode of a physical downlink control channel based on a plurality of transmission reception points (TRPs), and the second time-frequency resource is a time-frequency resource of a candidate physical downlink control channel for a transmission mode of a physical downlink control channel based on a single transmission reception point (TRP).

2. The communication method according to claim 1, wherein the first decoding mode is one or more of a plurality of different second decoding modes; and the first signaling is configured to indicate one or more of the plurality of different second decoding modes.

3. The communication method according to claim 2, wherein the one or more candidate physical downlink control channels comprise a first number of candidate physical downlink control channel combinations;

wherein a second number of candidate physical downlink control channels in each candidate physical downlink control channel combination is greater than or equal to 1, and less than or equal to a total number of the one or more candidate physical downlink control channels;

the second decoding modes comprise: performing combined decoding on the downlink control information received on the candidate physical downlink control channels in each candidate physical downlink control channel combination in the first number of the candidate physical downlink control channel combinations.

4. The communication method according to any one of claims 1 to 3, wherein the first signaling comprises at least one of a radio resource control (RRC) signaling, a medium access control (MAC) control element (CE) signaling, or a downlink control information (DCI) signaling.

5. The communication method according to claim 1, the first time-frequency resource and the second time-frequency resource correspond to different decoding modes.

6. The communication method according to claim 1 or 5, wherein the first time-frequency resource corresponds to a combined decoding mode or an individual decoding, and the second time-frequency resource corresponds to an individual decoding mode.

7. The communication method according to claim 1, wherein determining the first decoding mode for the downlink control information comprises:

determining a first decoding mode for the downlink control information based on a first state;

wherein the first state and a non-first state correspond to different decoding modes.

8. The communication method according to claim 7, wherein the first state

corresponds to an individual decoding mode, and the non-first state corresponds to a combined decoding mode; or

based on a protocol, it is determined that the first state corresponds to the individual decoding mode, and the non-first state corresponds to the combined decoding mode.

9. The communication method according to claim 8, wherein the first state comprises one or a combination of following:

presence of a candidate physical downlink control channel with a lower channel state information (CSI) feedback value according to CSI feedbacks on a plurality of candidate physical downlink control channels;

presence of a demodulation reference signal (DMRS) with poor reception performance in DMRSs on a plurality of candidate physical downlink control channels;

a transmission control indication (TCI) state of a plurality of candidate physical downlink control channels being indicated by independent signalings, and presence of a candidate physical downlink control channel with the TCI state unsuccessfully indicated;

presence of a candidate physical downlink control channel corresponding to a transmission reception point (TRP) where beam failure occurs in a plurality of candidate physical downlink control channels.

10. A communication method, performed by a network device and comprising:

determining a first sending mode for downlink control information;

wherein the downlink control information is downlink control information sent on one or more candidate physical downlink control channels in one or more beam directions, and the first sending mode is sending the downlink control information on one or more physical downlink control channels, the first sending mode corresponds to a first decoding mode of a terminal;

the first decoding mode comprises at least one of following:

performing individual decoding on the downlink control information sent on

the one or more candidate physical downlink control channels;

performing combined decoding on the downlink control information sent on the one or more candidate physical downlink control channels;

wherein the first sending mode corresponds to the first decoding mode of the terminal, and comprises:

sending indication information of the first decoding mode for the downlink control information based on a first signaling;

wherein the first signaling is configured to indicate a first time-frequency resource of at least one candidate physical downlink control channel or a second time-frequency resource of at least one candidate physical downlink control channel;

the first time-frequency resource is a time-frequency resource of a candidate physical downlink control channel for a transmission mode of a physical downlink control channel based on a plurality of transmission reception points (TRPs), and the second time-frequency resource is a time-frequency resource of a candidate physical downlink control channel for a transmission mode of a physical downlink control channel based on a single transmission reception point (TRP).

11. The communication method according to claim 10, wherein the first signaling is configured to indicate one or more of a plurality of different second decoding modes.

12. The communication method according to claim 11, wherein the one or more candidate physical downlink control channels comprise a first number of candidate physical downlink control channel combinations;

wherein a second number of candidate physical downlink control channels in each candidate physical downlink control channel combination is greater than or equal to 1, and less than or equal to a total number of the one or more candidate physical downlink control channels;

the second decoding modes comprise: performing combined decoding on the downlink control information sent on the candidate physical downlink control

channels in each candidate physical downlink control channel combination in the first number of the candidate physical downlink control channel combinations.

13. The communication method according to any one of claims 10 to 12, wherein the first signaling comprises at least one of a radio resource control (RRC) signaling, a medium access control (MAC) control element (CE) signaling, or a downlink control information (DCI) signaling.

14. The communication method according to claim 10, wherein the first time-frequency resource and the second time-frequency resource correspond to different decoding modes.

15. The communication method according to claim 10 or 14, wherein the first time-frequency resource corresponds to a combined decoding mode or an individual decoding, and the second time-frequency resource corresponds to an individual decoding mode.

16. A communication device, comprising:

a processor; and

a memory for storing instructions executable by the processor;

wherein the processor is configured to implement the communication method according to any one of claims 1 to 9 or the communication method according to any one of claims 10 to 15.