CLAIMS

1. A data transmission method, comprising:

receiving, by a terminal device, first Downlink Control Information, DCI, and second DCI, wherein the first DCI is configured for scheduling the terminal device to receive a first Physical Downlink Shared Channel, PDSCH, transmitted by using a first Transmission Time Interval, TTI, on a target carrier, the second DCI is configured for scheduling the terminal device to receive a second PDSCH transmitted by using a second TTI on the target carrier, the first TTI is smaller than the second TTI, and time resources of the first PDSCH and the second PDSCH at least partially overlap;

determining, by the terminal device, a priority relationship between the first DCI and the second DCI; and

receiving, by the terminal device, the first PDSCH or the second PDSCH on the target carrier according to the priority relationship.

2. The method according to claim 1, wherein determining the priority relationship between the first DCI and the second DCI comprises:

determining the priority relationship between the first DCI and the second DCI according to priorities of Radio Network Temporary Identifiers, RNTIs, of the first DCI and the second DCI.

3. The method according to claim 2, wherein the priority of the RNTI comprises a first RNTI priority and a second RNTI priority,

wherein the first RNTI priority comprises at least one of the following: a System Information RNTI, SI-RNTI, a Paging RNTI, P-RNTI, a Random Access RNTI, RA-RNTI, or a temporary RNTI; and

the second RNTI priority comprises at least one of the following: a Cell RNTI, C-RNTI, or a Semi-Persistent Scheduling RNTI, SPS-RNTI.

4. The method according to any one of claims 1-3, wherein receiving the first PDSCH on the target carrier according to the priority relationship comprises:

when a priority of the first DCI is a first priority and a priority of the second

DCI is a second priority, receiving the first PDSCH on the target carrier.

5. The method according to any one of claims 1-3, wherein receiving the second PDSCH on the target carrier according to the priority relationship comprises:

when a priority of the first DCI is a second priority and a priority of the second DCI is a first priority, receiving the second PDSCH on the target carrier.

6. The method according to any one of claims 1-3, wherein receiving the first PDSCH or the second PDSCH on the target carrier according to the priority relationship comprises:

when a priority of the first DCI is the first priority and a priority of the second DCI is the first priority, or when the priority of the first DCI is the second priority and the priority of the second DCI is the second priority, receiving the first PDSCH on the target carrier.

7. The method according to any one of claims 1-6, further comprising:

sending, by the terminal device, Acknowledgement, ACK/Negative Acknowledgement, NACK, information corresponding to a received PDSCH; or,

sending, by the terminal device, ACK/NACK information corresponding to a received PDSCH and sending NACK information corresponding to an unreceived PDSCH,

wherein, when the received PDSCH is the first PDSCH, the unreceived PDSCH is the second PDSCH, and when the received PDSCH is the second PDSCH, the unreceived PDSCH is the first PDSCH.

8. The method according to any one of claims 1-6, further comprising:

starting demodulating, by the terminal device, the first PDSCH after the first DCI is received.

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

after the second DCI is received, responsive to determining that the first DCI and the second DCI have the same priority and the first TTI is greater than the second TTI, stopping demodulating, by the terminal device, the first PDSCH and starting

demodulating the second PDSCH.

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

feeding back, by the terminal device to a network device, ACK/NACK information corresponding to the second PDSCH and NACK information corresponding to the first PDSCH.

11. A terminal device, comprising:

a receiving unit, configured to receive first Downlink Control Information, DCI, and second DCI, wherein the first DCI is configured for scheduling the terminal device to receive a first Physical Downlink Shared Channel, PDSCH, transmitted by using a first Transmission Time Interval, TTI, on a target carrier, the second DCI is configured for scheduling the terminal device to receive a second PDSCH transmitted by using a second TTI on the target carrier, the first TTI is smaller than the second TTI, and time resources of the first PDSCH and the second PDSCH at least partially overlap; and

a determination unit, configured to determine a priority relationship between the first DCI and the second DCI received by the receiving unit;

wherein the receiving unit is further configured to receive the first PDSCH or the second PDSCH on the target carrier according to the priority relationship determined by the determination unit.

12. The terminal device according to claim 11, wherein the determination unit is specifically configured to:

determine the priority relationship between the first DCI and the second DCI according to priorities of Radio Network Temporary Identifiers, RNTIs, of the first DCI and the second DCI.

13. The terminal device according to claim 12, wherein the priority of the RNTI comprises a first RNTI priority and a second RNTI priority,

wherein the first RNTI priority comprises at least one of the following: a System Information RNTI, SI-RNTI, a Paging RNTI, P-RNTI, a Random Access RNTI, RA-RNTI, or a temporary RNTI; and

the second RNTI priority comprises at least one of the following: a Cell RNTI, C-RNTI, or a Semi-Persistent Scheduling RNTI, SPS-RNTI.

14. The terminal device according to any one of claims 11-13, wherein the receiving unit is specifically configured to:

when a priority of the first DCI is a first priority and a priority of the second DCI is a second priority, receive the first PDSCH on the target carrier.

15. The terminal device according to any one of claims 11-13, wherein the receiving unit is specifically configured to:

when a priority of the first DCI is the second priority and a priority of the second DCI is the first priority, receive the second PDSCH on the target carrier.

16. The terminal device according to any one of claims 11-13, wherein the receiving unit is specifically configured to:

when a priority of the first DCI is the first priority and a priority of the second DCI is the first priority, or when the priority of the first DCI is the second priority and the priority of the second DCI is the second priority, receive the first PDSCH on the target carrier.

17. The terminal device according to any one of claims 11-16, further comprising a sending unit, wherein the sending unit is configured to:

send Acknowledgement, ACK/Negative Acknowledgement, NACK, information corresponding to a received PDSCH; or,

send ACK/NACK information corresponding to a received PDSCH and send NACK information corresponding to an unreceived PDSCH,

wherein, when the received PDSCH is the first PDSCH, the unreceived PDSCH is the second PDSCH, and when the received PDSCH is the second PDSCH, the unreceived PDSCH is the first PDSCH.

18. The terminal device according to any one of claims 11-16, wherein the determination unit is specifically configured to:

start demodulating the first PDSCH after the first DCI is received.

19. The terminal device according to claim 18, wherein the determination unit is specifically configured to:

after the second DCI is received, responsive to determining that the first DCI and the second DCI have the same priority and the first TTI is greater than the second TTI, stop demodulating the first PDSCH and start demodulating the second PDSCH.

20. The method according to claim 9, further comprising a sending unit, wherein the sending unit is configured to:

feed ACK/NACK information corresponding to the second PDSCH and NACK information corresponding to the first PDSCH back to a network device.