

CLAIMS

1. A method for transmitting data, comprising:
 - determining, by a terminal device, a Modulation Coding Scheme, MCS, grade for transmitting a target transport block;
 - determining, by the terminal device, according to the MCS grade as well as a Transport Block Size, TBS, mapping relationship when a preset first resource parameter is met, a first TBS corresponding to the MCS grade, wherein the TBS mapping relationship comprises a mapping relationship between MCS grades and TBSs;
 - determining, by the terminal device, a second TBS according to the first TBS and a second resource parameter for transmitting the target transport block; and
 - sending, by the terminal device, the target transport block to a network device according to the second TBS, or receiving the target transport block, which is sent by the network device according to the second TBS.
2. The method of claim 1, wherein the determining, by the terminal device, a second TBS according to the first TBS and a second resource parameter for transmitting the target transport block comprises:
 - determining, by the terminal device, a third TBS according to the second resource parameter and the first TBS; and
 - determining, by the terminal device, a maximum TBS in TBSs, that are smaller than or equal to the third TBS and equal to an integral multiple of a preset value, as the second TBS; or
 - determining a minimum TBS in TBSs, that are greater than or equal to the third TBS and equal to the integral multiple of the preset value, as the second TBS; or
 - determining, as the second TBS, a TBS having a minimum absolute value of a difference with the third TBS in TBSs that are equal to the integral multiple of the preset value.
3. The method of any one of claims 1 to 2, wherein the first resource parameter comprises at least one of:
 - a first time domain resource parameter, a first frequency domain resource parameter, a first time frequency resource parameter or a first number of transmission layers.
4. The method of any one of claims 1 to 3, wherein the second resource parameter comprises at least one of:
 - a second time domain resource parameter, a second frequency domain resource parameter, a second time frequency resource parameter or a second number of transmission layers.
5. The method of claim 4, wherein
 - the second time domain resource parameter comprises number of time domain Resource Elements, REs, used when the target transport block is transmitted, and each of the time domain REs is an Orthogonal Frequency Division Multiplexing, OFDM, symbol, a time slot, a mini-time slot or a subframe;
 - the second frequency domain resource parameter comprises number of frequency domain REs used when the target transport block is transmitted, and each of the frequency domain REs is a sub-carrier, a Physical Resource Block, PRB,, a sub-band or a carrier;
 - the second time frequency resource parameter comprises number of time frequency REs used when the target transport block is transmitted; and

the second number of transmission layers comprises number of transmission layers mapped by the target transport block.

6. The method of any one of claims 1 to 5, wherein the method further comprises:

before determining, by a terminal device, an MCS grade for transmitting a target transport block, receiving, by the terminal device, indication information from the network device, wherein the indication information indicates the MCS grade.

7. The method of any one of claims 1 to 6, wherein the preset first resource parameter comprises a number of resource elements.

8. A terminal device, comprising:

a determination unit, configured to determine a Modulation Coding Scheme, MCS, grade for transmitting a target transport block;

wherein the determination unit is further configured to determine, according to the MCS grade as well as a Transport Block Size, TBS, mapping relationship when a preset first resource parameter is met, a first TBS corresponding to the MCS grade, the TBS mapping relationship comprises a mapping relationship between MCS grades and TBSs, and

the determination unit is further configured to determine a second TBS according to the first TBS and a second resource parameter for transmitting the target transport block; and

a transmission unit, configured to send the target transport block to a network device according to the second TBS, or receive the target transport block, which is sent by the network device according to the second TBS.

9. The terminal device of claim 8, wherein the determination unit is specifically configured to:

determine a third TBS according to the second resource parameter and the first TBS; and
determine a minimum TBS in TBSs, that are greater than or equal to the third TBS and equal to the integral multiple of the preset value, as the second TBS; or

determine a minimum TBS in TBSs, that are greater than or equal to the third TBS and equal to the integral multiple of the preset value, as the second TBS; or

determine, as the second TBS, a TBS having a minimum absolute value of a difference with the third TBS in TBSs that are equal to the integral multiple of the preset value.

10. The terminal device of claim 8 or 9, wherein the first resource parameter comprises at least one of:

a first time domain resource parameter, a first frequency domain resource parameter, a first time frequency resource parameter or a first number of transmission layers.

11. The terminal device of any one of claims 8 to 10, wherein the second resource parameter comprises at least one of:

a second time domain resource parameter, a second frequency domain resource parameter, a second time frequency resource parameter or a second number of transmission layers.

12. The terminal device of claim 11, wherein

the second time domain resource parameter comprises number of time domain Resource Elements, REs, used when the target transport block is transmitted, and each of the time domain REs is an Orthogonal Frequency Division Multiplexing, OFDM, symbol, a time slot, a mini-time slot or a subframe;

the second frequency domain resource parameter comprises number of frequency domain REs used when the target transport block is transmitted, and each of the frequency domain REs is a sub-carrier, a Physical Resource Block, PRB,, a sub-band or a carrier;

the second time frequency resource parameter comprises number of time frequency REs used when the target transport block is transmitted; and

the second number of transmission layers comprises number of transmission layers mapped by the target transport block.

13. The terminal device of any one of claims 8 to 12, wherein the transmission unit is further configured to:

receive, before the determination unit determines the MCS grade for transmitting the target transport block, indication information from the network device, wherein the indication information indicates the MCS grade.

14. The terminal device of any one of claims 8 to 13, wherein the preset first resource parameter comprises a number of resource elements.

15. A network device, comprising:

a determination unit, configured to determine a Modulation Coding Scheme, MCS, grade for transmitting a target transport block, wherein

the determination unit is further configured to determine, according to the MCS grade as well as a Transport Block Size, TBS, mapping relationship when a preset first resource parameter is met, a first TBS corresponding to the MCS grade, wherein the TBS mapping relationship comprises a mapping relationship between MCS grades and TBSs; and

the determination unit is further configured to determine a second TBS according to the first TBS and a second resource parameter for transmitting the target transport block; and

a transmission unit, configured to send the target transport block to a terminal according to the second TBS, or receive the target transport block, which is sent by the terminal device according to the second TBS.

16. The network device of claim 15, wherein the determination unit is specifically configured to:

determine a third TBS according to the second resource parameter and the first TBS; and

determine a minimum TBS in TBSs, that are greater than or equal to the third TBS and equal to the integral multiple of the preset value, as the second TBS; or

determine a minimum TBS in TBSs, that are greater than or equal to the third TBS and equal to the integral multiple of the preset value, as the second TBS; or

determine, as the second TBS, a TBS having a minimum absolute value of a difference with the third TBS in TBSs that are equal to the integral multiple of the preset value.

17. The network device of claim 15 or 16, wherein the first resource parameter comprises at least one of:

a first time domain resource parameter, a first frequency domain resource parameter, a first time frequency resource parameter or a first number of transmission layers.

18. The network device of any one of claims 15 to 17, wherein the second resource parameter comprises at least one of:

a second time domain resource parameter, a second frequency domain resource parameter, a second time frequency resource parameter or a second number of transmission layers.

19. The network device of claim 18, wherein

the second time domain resource parameter comprises number of time domain Resource Elements, REs, used when the target transport block is transmitted, and each of the time domain REs is an Orthogonal Frequency Division Multiplexing, OFDM, symbol, a time slot, a mini-time slot or a subframe;

the second frequency domain resource parameter comprises number of frequency domain REs used when the target transport block is transmitted, and each of the frequency domain REs is a sub-carrier, a Physical Resource Block, PRB,, a sub-band or a carrier;

the second time frequency resource parameter comprises number of time frequency REs used when the target transport block is transmitted; and

the second number of transmission layers comprises number of transmission layers mapped by the target transport block.

20. The network device of any one of claims 15 to 18, wherein the transmission unit is further configured to:

send indication information to the terminal device, wherein the indication information indicates the MCS grade.