

CLAIMS

1. A method for data transmission, comprising:
 - receiving, by a receiver device, a first part and at least one second part of data on a time unit, a first modulation and coding processing being adopted for the first part and a second modulation and coding processing being adopted for the at least one second part; and
 - demodulating, by the receiver device, the first part and the at least one second part,wherein the time unit occupies N time-domain symbols, the first part occupies the first L time-domain symbols of the N time-domain symbols for transmission and the at least one second part occupies the last K time-domain symbols of the N time-domain symbols for transmission, N being a positive integer greater than 1, L being a positive integer not greater than N and K being a positive integer not greater than N.
2. The method of claim 1, wherein the first modulation and coding processing is different from the second modulation and coding processing in terms of at least one of coding manner, modulation manner, or coding rate.
3. The method of any one of claims 1-2, wherein a modulation level adopted for the second modulation and coding processing is not higher than a modulation level adopted for the first modulation and coding processing; and/or
 - a coding rate adopted for the second modulation and coding processing is not higher than a coding rate adopted for the first modulation and coding processing.
4. The method of any one of claims 1-3, wherein a size of each code block in the at least one second part is not greater than a first threshold value.
5. The method according to any one of claims 1-4, further comprising:
 - responsive to that the size of a target code block of the at least one second part is greater than a second threshold value, dividing, by the receiver device, the target code block into multiple code sub-blocks, a size of each of the multiple code sub-blocks being not greater than the second threshold value and each of the multiple code sub-blocks being independently coded.
6. The method of any one of claims 1-5, wherein a corresponding code block of the first part comprises multiple code sub-blocks, and each of the multiple code sub-blocks is independently coded.
7. The method of any one of claims 1-6, wherein the receiver device is a terminal device and the method further comprises:
 - sending, by the terminal device, capability information to a network device, the capability information being configured to indicate that the terminal device supports the data transmitted on the time unit to be divided into the first part and the at least one second part for transmission.
8. The method of any one of claims 1-6, wherein the receiver device is a terminal device and the method further comprises:
 - receiving, by the terminal device, a notification message sent by a network device, the notification message being configured to determine a code block size of the first part and a code block size of the at least one second part.

9. The method of any one of claims 1-6, wherein the receiver device is a terminal device and the method further comprises:

receiving, by the terminal device, first signaling sent by a network device, the first signaling being configured to indicate a modulation and coding level corresponding to the first modulation and coding processing; and

determining, by the terminal device, a modulation and coding level corresponding to the second modulation and coding processing according to the first signaling; or,

determining, by the terminal device, at least one of a modulation manner or coding rate corresponding to the second modulation and coding processing according to the first signaling.

10. The method of claim 1, wherein a sum of the L time-domain symbols occupied by the first part and the K time-domain symbols occupied by the at least one second part is the N time-domain symbols occupied by the time unit;

or, the sum of the L time-domain symbols occupied by the first part and the K time-domain symbols occupied by the at least one second part is a sum of the N time-domain symbols occupied by the time unit and a time-domain symbol, the last time-domain symbol in the L time-domain symbols and the first time-domain symbol in the K time-domain symbols being the same time-domain symbol.

11. The method of claim 2 or 10, wherein the receiver device is a terminal device and the method further comprises:

receiving, by the terminal device, second signaling sent by a network device, the second signaling being configured to indicate at least one of a value of K or a total number of the at least one second part.

12. The method of any one of claims 1-11, wherein the first part occupies a first frequency-domain resource for transmission and the at least one second part occupies a second frequency-domain resource for transmission, the first frequency-domain resource being different from the second frequency-domain resource.

13. The method of any one of claims 1-12, wherein interleaving processing is performed on the first part of the data before the first part is coded; and/or interleaving processing is performed on the first part of the data after the first part is coded.

14. A receiver device, comprising:

a receiving module, configured to receive a first part and at least one second part of data on a time unit, first modulation and coding processing being adopted for the first part and second modulation and coding processing being adopted for the at least one second part; and

a processing module, configured to demodulate the first part and the at least one second part,

wherein the time unit occupies N time-domain symbols, the first part occupies the first L time-domain symbols of the N time-domain symbols for transmission and the at least one second part occupies the last K time-domain symbols of the N time-domain symbols for transmission, N being a positive integer greater than 1, L being a positive integer not greater than N and K being a positive integer not greater than N.

15. The receiver device of claim 14, wherein the first modulation and coding processing is different from the second modulation and coding processing in terms of at least one of coding manner, modulation manner, or coding rate.

16. The receiver device of any one of claims 14-15, wherein a modulation level adopted for the

second modulation and coding processing is not higher than a modulation level adopted for the first modulation and coding processing; and/or

a coding rate adopted for the second modulation and coding processing is not higher than a coding rate adopted for the first modulation and coding processing.

17. The receiver device of any one of claims 14-16, wherein a size of each code block in the at least one second part is not greater than a first threshold value.

18. The receiver device of any one of claims 14-17, wherein the processing module is further configured to:

responsive to that the size of a target code block of the at least one second part is greater than a second threshold value, divide the target code block into multiple code sub-blocks, a size of each of the multiple code sub-blocks being not greater than the second threshold value and each of the multiple code sub-blocks being independently coded.

19. The receiver device of any one of claims 14-18, wherein a corresponding code block of the first part comprises multiple code sub-blocks, and each of the multiple code sub-blocks is independently coded.

20. The receiver device of any one of claims 14-19, further comprising:

a sending module, configured to send capability information to a network device, the capability information being configured to indicate that the receiver device supports the data transmitted on the time unit to be divided into the first part and the at least one second part for transmission.

21. The receiver device of any one of claims 14-19, wherein the receiving module is further configured to:

receive a notification message sent by a network device, the notification message being configured to determine a code block size of the first part and a code block size of the at least one second part.

22. The receiver device of any one of claims 14-19, wherein the receiving module is further configured to:

receive first signaling sent by a network device, the first signaling being configured to indicate a modulation and coding level corresponding to the first modulation and coding processing; and

the processing module is specifically configured to:

determine a modulation and coding level corresponding to the second modulation and coding processing according to the first signaling, or

determine at least one of a modulation manner or coding rate corresponding to the second modulation and coding processing according to the first signaling.

23. The receiver device of claim 14, wherein a sum of the L time-domain symbols occupied by the first part and the K time-domain symbols occupied by the at least one second part is the N time-domain symbols occupied by the time unit; or

the sum of the L time-domain symbols occupied by the first part and the K time-domain symbols occupied by the at least one second part is a sum of the N time-domain symbols occupied by the time unit and a time-domain symbol, the last time-domain symbol in the L time-domain symbols and the first time-domain symbol in the K time-domain symbols being the same time-domain symbol.

24. The receiver device of claim 14 or 23, wherein the receiving module is further configured to:
receive second signaling sent by a network device, the second signaling being configured to indicate at least one of a value of K or a total number of the at least one second part.
25. The receiver device of any one of claims 14-24, wherein the first part occupies a first frequency-domain resource for transmission and the at least one second part occupies a second frequency-domain resource for transmission, the first frequency-domain resource being different from the second frequency-domain resource.
26. The receiver device of any one of claims 14-25, wherein interleaving processing is performed on the first part of the data before the first part is coded; and/or interleaving processing is performed on the first part of the data after the first part is coded.