

CLAIMS

1. A method for data transmission, the method being performed by a first device, and comprising:

determining a first sequence control field for a first category of data frame, wherein the first sequence control field has a first bit length configured to enable the first sequence control field to support multi-link communication; and

sending the first category of data frame carrying the first sequence control field, wherein the first sequence control field comprises a first sequence number (SN) field, wherein the first SN field comprises at least a first quality management frame (QMF) SN field, and the first QMF SN field indicates a SN of the first category of data frame, and wherein the first sequence control field comprises a first fragment number field,

wherein a bit length of the first fragment number field in the first sequence control field is greater than a bit length of a second fragment number field in a second sequence control field, wherein a bit length of the second sequence control field is configured to support only single-link communication.

2. The method as claimed in claim 1, wherein the first fragment number field indicates a fragment number of the first category of data frame.

3. The method as claimed in claim 1 or 2, wherein the bit length of the first sequence control field is a fixed value.

4. The method as claimed in claim 3, wherein the bit length of the first sequence control field is greater than the bit length of the second sequence control field in a second category of data frame, wherein the first category of data frame and the second category of data frame are of different categories.

5. The method as claimed in claim 4, wherein
a bit length of the first SN field in the first sequence control field is greater than a bit length of a second SN field in the second sequence control field; and/or
a bit length of the first QMF SN field in the first SN field is greater than a bit length of a second QMF SN field in the second SN field.

6. The method as claimed in claim 3, wherein a bit length of the first SN field in the first

sequence control field is greater than 12.

7. The method as claimed in claim 6, wherein a bit length of the first QMF SN field in the first SN field of the first sequence control field is greater than 10.

8. The method as claimed in claim 4, wherein
the bit length of the first fragment number field in the first sequence control field is greater than 4.

9. The method as claimed in claim 1 or 2, wherein determining the first sequence control field for the first category of data frame comprises:

determining the bit length of the first sequence control field based on a link number of the first device.

10. The method as claimed in claim 9, wherein determining the bit length of the first sequence control field based on the link number of the first device comprises:

determining at least one of: a bit length of the first QMF SN field in the first SN field or a bit length of the first fragment number field in the first sequence control field, based on the link number of the first device.

11. The method as claimed in claim 10, wherein determining the bit length of the first QMF SN field in the first SN field based on the link number of the first device comprises:

determining a sum of a bit length occupied by a binary value of the link number of the first device and a first basic value, as the bit length of the first QMF SN field in the first SN field of the first sequence control field.

12. The method as claimed in claim 10, wherein determining the bit length of the first fragment number field in the first sequence control field based on the link number of the first device comprises:

determining a sum of a bit length occupied by a binary value of the link number of the first device and a second basic value, as the bit length of the first fragment number field in the first sequence control field.

13. The method as claimed in claim 9, wherein the link number of the first device includes at least one of: a number of links currently established by the first device or a maximum number of links supported by the first device.

14. The method as claimed in claim 9, further comprising:

determining whether a second device supports the multi-link communication, based on indication information carried in a management frame received from the second device.

15. A communication device, comprising:

a processor, and

a memory storing programs executable by the processor, wherein when the programs are executed by the processor, the method for data transmission are implemented according to any one of claims 1 to 14.

16. A non-transitory computer-readable storage medium having stored thereon programs that, when executed by a processor, cause the processor to perform the method for data transmission according to any one of claims 1 to 14.