WHAT IS CLAIMED IS:

1. An uplink transmission method, performed by a terminal, comprising:

determining whether a switching gap is required between two adjacent uplink transmissions of the terminal in a case where the terminal supports uplink transmission switching among a plurality of frequency bands, wherein a total number of the plurality of frequency bands is greater than 2,

wherein the determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal comprises:

determining that the switching gap is required between the two adjacent uplink transmissions of the terminal in a case where frequency bands for the two adjacent uplink transmissions of the terminal are different; or

determining that the switching gap is not required between the two adjacent uplink transmissions of the terminal in a case where frequency bands for the two adjacent uplink transmissions of the terminal are the same.

2. The uplink transmission method according to claim 1, wherein the determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal comprises:

determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal based on an association relationship between a reference frequency band pair and an uplink transmission antenna port, wherein the reference frequency band pair comprises one or two of the plurality of frequency bands, and the uplink transmission antenna port is used for uplink transmission performed on an uplink transmission chain.

3. The uplink transmission method according to claim 2, further comprising:

determining the reference frequency band pair; and

determining the association relationship based on the reference frequency band pair.

4. The uplink transmission method according to claim 2, further comprising:

receiving indication information transmitted by a base station, wherein the indication information indicates the reference frequency band pair; and

determining the association relationship based on the reference frequency band pair indicated by the indication information.

5. The uplink transmission method according to claim 4, wherein the receiving the indication information transmitted by the base station comprises:

receiving the indication information transmitted by the base station through a radio resource control (RRC) signaling or a media access control control element (MAC CE) signaling.

6. The uplink transmission method according to any one of claims 3 to 5, wherein the determining the association relationship comprises:

determining the association relationship based on a first reference frequency band pair in a case where an uplink transmission is performed in a first frequency band comprised in the first reference frequency band pair, wherein the first reference frequency band pair is any one frequency band pair of the reference frequency band pair.

7. The uplink transmission method according to claim 6, wherein the determining the association relationship based on the first reference frequency band pair comprises:

determining that an uplink transmission chain corresponding to the first reference frequency band pair operates in the first frequency band; and

determining that another uplink transmission chain corresponding to the first reference frequency band pair operates in a second frequency band comprised in the first reference frequency band pair.

8. The uplink transmission method according to claim 7, wherein the determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal based on the association relationship between the reference frequency band pair and the uplink transmission chain comprises:

determining that the switching gap is not required between the two adjacent uplink transmissions of the terminal in a case where frequency bands in which the two adjacent uplink transmissions of the terminal are located belong to a same frequency band pair of the reference frequency band pair.

9. The uplink transmission method according to claim 8, wherein the determining that the switching gap is not required between the two adjacent uplink transmissions of the terminal in a case where the frequency bands in which the two adjacent uplink transmissions of the terminal are located belong to the same frequency band pair of the reference frequency band pair comprises:

determining that the switching gap is not required between the two adjacent uplink transmissions of the terminal in a case where the two adjacent uplink transmissions of the terminal are located in a same frequency band, and the same frequency band belongs to any one frequency band pair of the reference frequency band pair; or

determining that the switching gap is not required between the two adjacent uplink transmissions of the terminal in a case where the two adjacent uplink transmissions of the terminal are located in two different frequency bands, and the two different frequency bands belong to a same frequency band pair of the reference frequency band pair.

10. The uplink transmission method according to claim 2, wherein the determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal based on the association relationship between the reference frequency band pair and the uplink transmission chain comprises:

determining that the switching gap is required between the two adjacent uplink transmissions of the terminal in a case where the two adjacent uplink transmissions of the terminal are located in two different frequency bands, and the two different frequency bands do not belong to a same frequency band pair of the reference frequency band pair; or

determining that the switching gap is required between the two adjacent uplink transmissions of the terminal in a case where the two adjacent uplink transmissions of the terminal are located in a same frequency band, the same frequency band belongs to any one frequency band pair of the reference frequency band pair, and a correspondence between the same frequency band and the uplink transmission chain changes; and determining that the correspondence changes in a case where a number of uplink transmission chains corresponding to the same frequency band changes.

11. The uplink transmission method according to claim 2, wherein the determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal based on the association relationship between the reference frequency band pair and the uplink transmission chain comprises:

determining that the switching gap is required between the two adjacent uplink transmissions of the terminal in a case where there are a plurality of reference frequency band pairs, and a reference frequency band pair corresponding to the two adjacent uplink transmissions of the terminal changes.

12. The uplink transmission method according to claim 1, further comprising:

determining that the terminal does not expect simultaneous uplink transmissions on two or more frequency bands among the plurality of frequency bands.

13. The uplink transmission method according to claim 12, wherein the determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal comprises:

determining that the switching gap is required between the two adjacent uplink transmissions of the terminal in a case where frequency bands for the two adjacent uplink transmissions of the terminal are the same, and numbers of ports used for the two adjacent uplink transmissions are different.

14. An uplink transmission method, performed by a base station, comprising:

determining whether a switching gap is required between two adjacent uplink transmissions of a terminal in a case where the terminal supports uplink transmission switching among a plurality of frequency bands, wherein a total number of the plurality of frequency bands is greater than 2,

wherein the determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal comprises:

determining that the switching gap is required between the two adjacent uplink transmissions of the terminal in a case where frequency bands for the two adjacent uplink transmissions of the terminal are different; or

determining that the switching gap is not required between the two adjacent uplink transmissions of the terminal in a case where frequency bands for the two adjacent uplink transmissions of the terminal are the same.

15. The uplink transmission method according to claim 14, wherein the determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal comprises:

determining whether the switching gap is required between the two adjacent uplink transmissions of the terminal based on an association relationship between a reference frequency band pair and an uplink transmission antenna port, wherein the reference frequency band pair comprises one or two of the plurality of frequency bands, and the uplink transmission antenna port is used for uplink transmission performed on an uplink

transmission chain.

16. The uplink transmission method according to claim 15, further comprising:

transmitting indication information to the terminal through a radio resource control (RRC) signaling or a media access control control element (MAC CE) signaling, wherein the indication information indicates the reference frequency band pair; and

determining the association relationship based on the reference frequency band pair indicated by the indication information.

17. The uplink transmission method according to claim 14, further comprising:

determining that time domain resources occupied by any two frequency bands among the plurality of frequency bands do not overlap.

18. A terminal, comprising:

a processor; and

a memory storing instructions executable by the processor,

wherein the processor is configured to perform the uplink transmission method according to any one of claims 1 to 13.

19. A base station, comprising:

a processor; and

a memory storing instructions executable by the processor,

wherein the processor is configured to perform the uplink transmission method according to any one of claims 14 to 17.