CLAIMS

1. A spatial reuse method, comprising:

receiving, by a first spatial reuse device, a portion or all of a Parameterized Spatial Reuse Reception, PSRR, physical layer protocol data unit, PPDU, sent by a second spatial reuse device on a first frequency band, wherein the first frequency band comprises one or more subbands with a same bandwidth; and

determining, by the first spatial reuse device based on a value of a spatial reuse parameter, SRP, at a granularity which is the bandwidths of the one or more subbands and a received power level, RPL, of the PSRR PPDU at a granularity which is the bandwidths of the one or more subbands, a reference transmit power for sending a Parameterized Spatial Reuse Transmission, PSRT, PPDU on a second frequency band, wherein

the second frequency band comprises one or more subbands with the bandwidth, and the second frequency band and the first frequency band at least partially overlap,

wherein the RPL at the granularity which is the bandwidths of the one or more subbands is determined based on a bandwidth of a non-punctured subband in the one or more subbands that are in the first frequency band and that are occupied by the portion or all of the PSRR PPDU received by the first spatial reuse device.

2. A spatial reuse method, comprising:

receiving, by a communication apparatus from a first spatial reuse device, a Parameterized Spatial Reuse Transmission, PSRT, physical layer protocol data unit, PPDU on a second frequency band, wherein the second frequency band comprises one or more subbands with a same bandwidth; a reference transmit power of the PSRT PPDU is determined based on a value of a spatial reuse parameter, SRP, at a granularity which is the bandwidths of the one or more subbands and a received power level, RPL, of a Parameterized Spatial Reuse Reception, PSRR PPDU at a granularity which is the bandwidths of the one or more subbands; wherein the PSRR PDDU is received on a first frequency band by the first spatial reuse device, the first frequency band comprises one or more subbands with the bandwidth, and the second frequency band and the first frequency band at least partially overlap,

wherein the RPL at the granularity of the bandwidth is determined based on a bandwidth of

a non-punctured subband in the one or more subbands that are in the first frequency band and that are occupied by the portion or all of the PSRR PPDU received by the first spatial reuse device.

3. The method according to claim 1 or 2, wherein the RPL at the granularity which is the bandwidths of the one or more subbands is determined based on an overlapping subband between the second frequency band and the one or more subbands that are in the first frequency band and that are occupied by the portion or all of the PSRR PPDU received by the first spatial reuse device.

4. The method according to claim 1 or 2, wherein the RPL at the granularity which is the bandwidths of the one or more subbands is determined based on

a bandwidth of a non-punctured subband in an overlapping subband between the second frequency band and the one or more subbands that are in the first frequency band and that are occupied by the portion or all of the PSRR PPDU received by the first spatial reuse device.

5. The method according to claim 1 or 2, wherein the reference transmit power is further determined based on a bandwidth of the non-punctured subband in the second frequency band.

6. The method according to claim 1 or 2, wherein the reference transmit power is further determined based on a bandwidth of a non-punctured subband in an overlapping subband between the second frequency band and the one or more subbands that are in the first frequency band and that are occupied by the portion or all of the PSRR PPDU received by the first spatial reuse device.

7. The method according to claim 1, further comprising:

determining, by the first spatial reuse device, the non-punctured subband in the first frequency band based on at least one of the following:

puncturing indication information comprised in a preamble in the received PSRR PPDU;

puncturing indication information comprised in the PSRR PPDU, wherein the PSRR PPDU is a non-high throughput duplicate PPDU; or

puncturing indication information comprised in a management frame of a basic service set BSS in which the second spatial reuse device is located, wherein the management frame comprises at least one of the following frames: a beacon frame, an association response frame, a probe

response frame, a neighbor report frame, or a reduced neighbor report frame.

8. The method according to claim 1, wherein the first spatial reuse device determines to puncture the PSRT PPDU, and the method further comprises:

adjusting, by the first spatial reuse device, the reference transmit power based on an offset.

9. The method according to claim 1 or 2, wherein the first frequency band comprises a plurality of subbands, and the value of the SRP at the granularity which is the bandwidths of the one or more subbands is a smallest value in a plurality of values of the SRP for the plurality of subbands.

10.A communication apparatus, comprising:

a receiving module, configured to receive a portion or all of a Parameterized Spatial Reuse Reception, PSRR, physical layer protocol data unit, PPDU sent by a second spatial reuse device on a first frequency band, wherein the first frequency band comprises one or more subbands with a same bandwidth; and

a first determining module, configured to determine, based on a value of a spatial reuse parameter, SRP, at a granularity which is the bandwidths of the one or more subbands and a received power level, RPL, of the PSRR PPDU at a granularity which is the bandwidths of the one or more subbands, a reference transmit power for sending a Parameterized Spatial Reuse Transmission, PSRT, PPDU on a second frequency band, wherein

the second frequency band comprises one or more subbands with the bandwidth, and the second frequency band and the first frequency band at least partially overlap,

wherein the RPL at the granularity which is the bandwidths of the one or more subbands is determined based on a bandwidth of a non-punctured subband in the one or more subbands that are in the first frequency band and that are occupied by the portion or all of the PSRR PPDU received by the first spatial reuse device.

11. A communication apparatus, comprising:

a receiving module, configured to receive from a first spatial reuse device, a Parameterized Spatial Reuse Transmission, PSRT, physical layer protocol data unit, PPDU on a second frequency

band, wherein the second frequency band comprises one or more subbands with a same bandwidth; a reference transmit power of the PSRT PPDU is determined based on a value of a spatial reuse parameter, SRP, at a granularity which is the bandwidths of the one or more subbands and a received power level, RPL, of a Parameterized Spatial Reuse Reception, PSRR PPDU at a granularity which is the bandwidths of the one or more subbands; wherein the PSRR PDDU is received on a first frequency band by the first spatial reuse device, the first frequency band comprises one or more subbands with the bandwidth, and the second frequency band and the first frequency band at least partially overlap,

wherein the RPL at the granularity which is the bandwidths of the one or more subbands is determined based on a bandwidth of a non-punctured subband in the one or more subbands that are in the first frequency band and that are occupied by the portion or all of the PSRR PPDU received by the first spatial reuse device.

12. The communication apparatus according to claim 10 or 11, wherein the RPL at the granularity which is the bandwidths of the one or more subbands is determined based on an overlapping subband between the second frequency band and the one or more subbands that are in the first frequency band and that are occupied by the portion or all of the received PSRR PPDU.

13. The communication apparatus according to claim 10 or 11, wherein the RPL at the granularity which is the bandwidths of the one or more subbands is determined based on

a bandwidth of a non-punctured subband in an overlapping subband between the second frequency band and the one or more subbands that are in the first frequency band and that are occupied by the portion or all of the received PSRR PPDU.

14. The communication apparatus according to claim 10 or 11, wherein the reference transmit power is further determined based on a bandwidth of the non-punctured subband in the second frequency band; or

15. The communication apparatus according to claim 10 or 11, wherein the reference transmit power is further determined based on a bandwidth of a non-punctured subband in an overlapping subband between the second frequency band and the one or more subbands that are in the first

frequency band and that are occupied by the portion or all of the received PSRR PPDU.

16. The communication apparatus according to claim 10, further comprising:

a second determining module, configured to determine the non-punctured subband in the first frequency band based on at least one of the following:

puncturing indication information comprised in a preamble in the received PSRR PPDU;

puncturing indication information comprised in the PSRR PPDU, wherein the PSRR PPDU is a non-high throughput duplicate PPDU; or

puncturing indication information comprised in a management frame of a basic service set BSS in which the second spatial reuse device is located, wherein the management frame comprises at least one of the following frames: a beacon frame, an association response frame, a probe response frame, a neighbor report frame, or a reduced neighbor report frame.

17. The communication apparatus according to claim 10, further comprising:

a third determining module, configured to determine to puncture the PSRT PPDU; and

an adjustment module, configured to adjust the reference transmit power based on an offset.

18. The communication apparatus according to claim 10 or 11, wherein the first frequency band comprises a plurality of subbands, and the value of the SRP at the granularity which is the bandwidths of the one or more subbands is a smallest value in a plurality of values of the SRP for the plurality of subbands.

19. A communication device, comprising:

a processor, wherein the processor is coupled to a memory, the memory stores instructions, and when the instructions are executed by the processor, the method according to any one of claims 1 to 9 is performed.

20. A computer-readable storage medium, wherein the computer-readable storage medium stores a program, and when at least part of the program is executed by a processor in a device, the device is enabled to perform the method according to any one of claims 1 to 9.