(pattern) subfield, a group measurement duration (Group measurement duration) subfield, a number of group (Number of Group) subfield, and an interval between group (Interval between Group) subfield. The pattern subfield indicates a frequency pattern for sending data based on a burst. For example, when a field value of the pattern subfield is 0, it indicates that sending is performed at a low frequency. When a field value of the pattern subfield is 1, it indicates that sending is performed at a high frequency. The group measurement duration (Group measurement duration) subfield indicates sending duration of a single packet group. The number of group (Number of Group) subfield indicates a quantity of sent NDPs in a single packet group. The interval between group (Interval between Group) subfield indicates an interval between packet groups.

[00178] 2.3 Sensing Feedback Type subfield

[00179] The Sensing Feedback Type subfield is used to configure a type of a measurement result fed back by the device. The type of feeding back the measurement result includes but is not limited to: CSI feedback, compressed CSI feedback, final result feedback (speed information, angle information, distance information, or the like), or the like.

[00180] For example, when a field value of the Sensing Feedback Type subfield is 0, it indicates that the CSI is fed back; when a field value of the Sensing Feedback Type subfield is 1, it indicates that the compressed CSI is fed back; when a field value of the Sensing Feedback Type subfield is 2, it indicates that the final result speed information is fed back; when a field value of the Sensing Feedback Type subfield is 3, it indicates that the final result angle information is fed back; or when a field value of the Sensing Feedback Type subfield is 4, it indicates that the final result distance information is fed back, and the like.

[00181] Structure 3: The first frame includes a common information field and a station information field, and the first information is located in the common information field and/or the station information field.

[00182] In this case, the common information field is used to configure the same configuration content of the STAs participating in the sensing session, and may be understood as configuration information shared by the STAs participating in the sensing session in the first information, that is, common parameter information. Station information fields are in a one-to-one correspondence with the STAs participating in the sensing session, and the station ~~user~~ information field is used to configure the configuration content specific to the STAs participating in the sensing session, and may be understood as parameter information specific to the STAs participating in the sensing session in the first information, that is, parameter information other than the common parameter information in the first information.

[00183] For example, FIG. 6d is a schematic diagram of still another frame structure of the first

FIG. 11d) to the AP. If the sixth frame sent by another STA (the STA 2 or the STA 3) other than the STA 1 in FIG. 11d indicates that the STA receiving/sending the sixth frame refuses to participate in the sensing session by using the role and/or the sensing parameter configured in the fifth frame, the STA 1 sends the fifth frame to the STA 2 and the STA 3 again, and configures the role and the sensing parameter for the STA 2 and the STA 3 to participate in the sensing session until the sixth frame sent by the STA 2 to the AP indicates that the STA 2 confirms to participate in the sensing session by using the third role and the fourth sensing parameter that correspond to the STA 2, and/or the sixth frame sent by the STA 3 to the AP indicates that the STA 3 confirms to participate in the sensing session by using the third role and the fourth sensing parameter that correspond to the STA 3. In a measurement phase, the STA 1 sends a sensing signal to the STA 2 and the STA 3. After receiving the sensing signal, the STA 2 and the STA 3 perform signal processing measurement to obtain a measurement result. In a reporting phase, the STA 1 sends a Poll frame to both the STA 2 and the STA 3, so that the STA 2 and the STA 3 send the measurement result to the STA 1 after receiving the Poll frame. Further, the STA 1 sends, to the AP, a measurement report received from the STA 2 and the STA 3. It should be noted that, in the reporting phase, the STA 1 may alternatively obtain the measurement result of the STA 2 and the STA 3 in a scheduling-based manner (as shown in case 2 in FIG. 5c) or a contention-based manner (as shown in case 3 in FIG. 5c).

[00422] In another application scenario corresponding to FIG. 11a, in a sensing session establishment phase, the AP sends a first frame (a trigger frame in FIG. 11e) to the STA 1, the STA 2, and the STA 3 by using the method shown in FIG. 6a, and configures a role and a sensing parameter for each of the STA 1, STA 2, and STA 3 to participate in the sensing session. After receiving the first frame, the STA 1 sends a second frame (for example, a confirm frame in FIG. 11e) to the AP~~STA 1~~, and confirms to accept first information that is in the first frame and that is configured by the AP for the STA 1. After receiving the first frame, the STA 2 sends a second frame (for example, a confirm frame in FIG. 11e) to the STA 1, and confirms to accept first information that is in the first frame and that is configured by the AP for the STA 2. After receiving the first frame, the STA 3 sends a second frame to the STA 1, and confirms to accept first information that is in the first frame and that is configured by the AP for the STA 3. In a measurement phase, the STA 1 sends a sensing signal to the STA 2 and the STA 3. After receiving the sensing signal, the STA 2 and the STA 3 perform signal processing measurement to obtain a measurement result. In a reporting phase, the STA 1 sends a Poll frame to both the STA 2 and the STA 3, so that the STA 2 and the STA 3 send the measurement result to the STA 1 after receiving the Poll frame. Further, the STA 1 sends, to the AP, a measurement report received from the STA 2 and the STA 3. It should be noted that, in the reporting phase, the STA 1 may alternatively obtain the measurement result

of the STA 2 and the STA 3 in a scheduling-based manner (as shown in case 2 in FIG. 5c) or a contention-based manner (as shown in case 3 in FIG. 5c).

[00423] In the sensing session establishment phase, if the AP establishes the sensing session by using the method shown in FIG. 7a, a schematic diagram of the sensing procedure in the application scenario in FIG. 10a is shown in FIG. 11f. In the sensing session establishment phase, the AP sends a third frame (a sensing request frame in FIG. 11f) to each of the STA 1, the STA 2, and the STA 3 by using the method shown in FIG. 7a, to request the STA 1, the STA 2, and the STA 3 to participate in the sensing session. After the STA 1 receives the third frame from the AP, the STA 1 sends a fourth frame (for example, a sensing response frame in FIG. 11c) to the AP, and indicates, in the fourth frame, a receiving/sending capability of the STA 1 (for example, a role supported in the sensing session is a transmitter) and a corresponding sensing parameter. After the STA 2 receives the third frame from the AP, the STA 2 sends a fourth frame (for example, a sensing response frame in FIG. 11f) to the AP, and indicates, in the fourth frame, a receiving/sending capability of the STA 2 (for example, a role supported in the sensing session is a receiver) and a corresponding sensing parameter. After the STA 3 receives the third frame from the AP, the STA 3 sends a fourth frame (for example, a sensing response frame in FIG. 11f) to the AP, and indicates, in the fourth frame, a receiving/sending capability of the STA 3 (for example, a role supported in the sensing session is a receiver) and a corresponding sensing parameter. Further, the AP determines the STA 1, the STA 2, and the STA 3 as first STAs participating in the sensing session, and the AP sends (for example, sends by broadcast) a first frame (for example, a Trigger frame) to the STA 1, the STA 2, and the STA 3 based on a fourth frame (for example, a sensing response frame in FIG. 11f) fed back by each of the STA 1, the STA 2, and the STA 3, and configures a role and a sensing parameter for each of the STA 1, the STA 2, and the STA 3 to participate in the sensing session. After receiving the first frame, the STA 1 sends a second frame (for example, a Confirm frame) to the AP, and confirms to accept first information that is in the first frame and that is configured by the AP for the STA 1. After receiving the first frame, the STA 2 sends a second frame (for example, a Confirm frame) to the AP, and confirms to accept first information that is in the first frame and that is configured by the AP for the STA 2. After receiving the first frame, the STA 3 sends a second frame to the AP, and confirms to accept first information that is in the first frame and that is configured by the AP for the STA 3. In a measurement phase, the STA 1 sends a sensing signal to the STA 2 and the STA 3. After receiving the sensing signal, the STA 2 and the STA 3 perform signal processing measurement to obtain a measurement result. In a reporting phase, the STA 1 sends a Poll frame to both the STA 2 and the STA 3, so that the STA 2 and the STA 3 send the measurement result to the STA 1 after receiving the Poll frame. Further, the STA 1 sends, to the AP, a measurement report received from the STA 2 and the STA 3. It should be noted that, in the

CLAIMS

What is claimed is:

1. A method, wherein the method comprises:

receiving, by an access point (AP), a sensing request frame from a first station (STA), wherein the sensing request frame is used to request the AP to participate in a sensing session, the sensing request frame comprises an indication subfield, the indication subfield is used to indicate the first STA participates in at least one of receiving or sending of sensing signal, or, the indication subfield is used to indicate the first STA does not participate in at least one of receiving or sending of sensing signal; and

sending, by the AP, a sensing response frame to the first STA, wherein the sensing response frame is used to indicate the AP participates or does not participate in the sensing session.

2. The method according to claim 1, wherein the sensing request frame comprises a sensing request element field, the sensing request element field comprises a sensing request information subfield, and the sensing request information subfield comprises the indication subfield.

3. The method according to claim 1 or 2, wherein the sensing request frame comprises another station information subfield, the another station information subfield indicates an address of another STA participating in the sensing session.

4. The method according to claim 3, wherein the sensing request frame comprises a sensing request element field, the sensing request element field comprises the another station information subfield.

5. The method according to any one of claims 1 to 4, wherein the method comprises:

performing, by the AP, coordinated scheduling on STAs participating in the sensing session.

6. The method according to any one of claims 1 to 5, wherein the indication subfield is used to indicate the first STA participates in the sensing session as at least one of a receiver or a transmitter, or, the indication subfield is used to indicate the first STA does not participate in the sensing session as at least one of a receiver or a transmitter.

7. A method, wherein the method comprises:

sending, by a first station (STA), a sensing request frame to an access point (AP), wherein the sensing request frame is used to request the AP to participate in a sensing session, the sensing request frame comprises an indication subfield, the indication subfield is used to indicate the first STA participates in at least one of receiving or sending of sensing signal, or, the indication subfield is used to indicate the first STA does not participate in at least one of receiving or sending of sensing signal; and

receiving, by the first STA, a sensing response frame from the AP, wherein the sensing

response frame is used to indicate the AP participates or does not participate in the sensing session.

8. The method according to claim 7, wherein the sensing request frame comprises a sensing request element field, the sensing request element field comprises a sensing request information subfield, and the sensing request information subfield comprises the indication subfield.

9. The method according to claim 7 or 8, wherein the sensing request frame comprises another station information subfield, the another station information subfield indicates an address of another STA participating in the sensing session.

10. The method according to claim 9, wherein the sensing request frame comprises a sensing request element field, the sensing request element field comprises the another station information subfield.

11. The method according to any one of claims 7 to 10, wherein the indication subfield is used to indicate the first STA participates in the sensing session as at least one of a receiver or a transmitter, or, the indication subfield is used to indicate the first STA does not participate in the sensing session as at least one of a receiver or a transmitter.

~~1. A sensing session establishment method, wherein the method comprises:~~

~~sending, by an access point AP, a first frame to a first station STA, wherein the first frame comprises first information, the first information indicates a first role of the first STA in a sensing session, the first role of the first STA in the sensing session is a transmitter and/or a receiver, and the first STA is a STA participating in the sensing session in a second STA associated with the AP; and~~

~~receiving, by the AP, a second frame from the first STA, wherein the second frame comprises confirm information for the first frame.~~

~~2. The method according to claim 1, wherein the first frame further comprises a first sensing parameter, and the first sensing parameter is used by the first STA to perform sensing measurement and/or sensing data reporting in the sensing session.~~

~~3. The method according to claim 2, wherein the first sensing parameter comprises one or more of the following parameters: an operation parameter, a feedback type, a sensing type, or a feedback address.~~

~~4. The method according to any one of claims 1 to 3, wherein that the first frame comprises first information specifically comprises:~~

~~the first frame comprises a common information field and a user information field, and the first information is located in the common information field and/or the user information field;~~

~~the first frame comprises a station information field, and the first information is located in the station information field; or~~

~~the first frame comprises a common information field and a station information field, and the~~

first information is located in the common information field and/or the station information field.

5. The method according to any one of claims 1 to 4, wherein that the second frame comprises confirm information for the first frame specifically comprises:

the second frame comprises a confirm element field, and the confirm information is located in the confirm element field.

6. The method according to any one of claims 1 to 5, wherein before the sending, by an AP, a first frame to a first STA, the method further comprises:

sending, by the AP, a third frame to a plurality of second STAs, wherein the third frame comprises second information, and the second information is used to request the second STA to participate in the sensing session;

receiving, by the AP, a fourth frame from the plurality of second STAs, wherein the fourth frame comprises third information, and the third information indicates whether the second STA confirms to participate in the sensing session; and

determining, by the AP, the first STA from the plurality of second STAs based on the third information from the plurality of second STAs.

7. The method according to claim 6, wherein when the third information indicates that the second STA confirms to participate in the sensing session, the third information further comprises a second role supported by the second STA in the sensing session and a second sensing parameter corresponding to the second role; and

the determining, by the AP, the first STA from the plurality of second STAs based on the third information from the plurality of second STAs comprises:

determining, by the AP, the first STA from the plurality of second STAs based on a role of the AP in the sensing session and the third information from the plurality of second STAs.

8. The method according to claim 7, wherein the role of the AP in the sensing session is not a transmitter and the role of the AP in the sensing session is not a receiver, and the determining, by the AP, the first STA from the plurality of second STAs based on a role of the AP in the sensing session and the third information from the plurality of second STAs comprises:

when third information from a third STA indicates that the third STA participates in the sensing session, and third information from a fourth STA indicates that the fourth STA participates in the sensing session, determining, by the AP, the third STA and the fourth STA as the first STAs, wherein

a second role corresponding to the third STA is a receiver in the sensing session, and a second role corresponding to the fourth STA is a transmitter in the sensing session.

9. The method according to claim 8, wherein the third STA and the fourth STA are a same STA.

10. The method according to claim 7, wherein the role of the AP in the sensing session is a transmitter, and the determining, by the AP, the first STA from the plurality of second STAs based on a role of the AP in the sensing session and the third information from the plurality of second STAs comprises:

when third information from a fifth STA indicates that the fifth STA participates in the sensing session, determining, by the AP, the fifth STA as the first STA, wherein

the fifth STA is one of the plurality of second STAs, and a second role corresponding to the fifth STA is a receiver in the sensing session.

11. The method according to claim 7, wherein the role of the AP in the sensing session is a receiver, and the determining, by the AP, the first STA from the plurality of second STAs based on a role of the AP in the sensing session and the third information from the plurality of second STAs comprises:

when third information from a sixth STA indicates that the sixth STA participates in the sensing session, determining, by the AP, the sixth STA as the first STA, wherein

the sixth STA is one of the plurality of second STAs, and a second role corresponding to the sixth STA is a transmitter in the sensing session.

12. The method according to any one of claims 7 to 11, wherein the method further comprises:

determining, by the AP, the first sensing parameter based on the second sensing parameter.

13. The method according to any one of claims 6 to 12, wherein that the third frame comprises second information specifically comprises:

the third frame comprises a common information field, and the second information is located in the common information field; or

the third frame comprises a sensing request element field, and the second information is located in the sensing request element field.

14. The method according to any one of claims 6 to 13, wherein that the fourth frame comprises third information specifically comprises:

the fourth frame comprises a sensing confirm element field, and the third information is located in the sensing confirm element field; or

the fourth frame comprises a sensing response element field, and the third information is located in the sensing response element field.

15. The method according to any one of claims 1 to 3, wherein that the first frame comprises first information specifically comprises:

the first frame comprises a sensing request element field, and the first information is located in the sensing request element field.

16. The method according to claim 15, wherein that the second frame comprises confirm

~~information for the first frame specifically comprises:~~

~~the second frame comprises a sensing response element field, and the confirm information is located in the sensing response field.~~

~~17. The method according to claim 15 or 16, wherein the method further comprises:~~

~~sending, by the AP, a fifth frame to a plurality of second STAs, wherein the fifth frame comprises fourth information, and the fourth information is used to request the second STA to participate in the sensing session by using a third role and a fourth sensing parameter;~~

~~receiving, by the AP, a sixth frame from the plurality of second STAs, wherein the sixth frame comprises fifth information, and the fifth information indicates whether the second STA confirms to participate in the sensing session by using the third role and the fourth sensing parameter; and~~

~~determining, by the AP, the first STA from the plurality of second STAs based on the fifth information from the plurality of second STAs.~~

~~18. The method according to claim 17, wherein the determining, by the AP, the first STA from the plurality of second STAs based on the fifth information from the plurality of second STAs comprises:~~

~~when fifth information from a third STA indicates that the third STA participates in the sensing session based on a third role corresponding to the third STA and the fourth sensing parameter, and fifth information from a fourth STA indicates that the fourth STA participates in the sensing session based on a third role corresponding to the fourth STA and the fourth sensing parameter, determining, by the AP, the third STA and the fourth STA as the first STAs, wherein~~

~~the third role corresponding to the third STA is a receiver in the sensing session, and the third role corresponding to the fourth STA is a transmitter in the sensing session.~~

~~19. The method according to claim 18, wherein the third STA and the fourth STA are a same STA.~~

~~20. The method according to claim 17, wherein the determining, by the AP, the first STA from the plurality of second STAs based on the fifth information from the plurality of second STAs comprises:~~

~~determining, by the AP, the first STA from the plurality of second STAs based on a role of the AP in the sensing session and the fifth information from the plurality of second STAs.~~

~~21. The method according to claim 20, wherein the determining, by the AP, the first STA from the plurality of second STAs based on a role of the AP in the sensing session and the fifth information from the plurality of second STAs comprises:~~

~~when the role of the AP in the sensing session is a transmitter, and fifth information from a fifth STA indicates that the fifth STA participates in the sensing session based on a third role corresponding to the fifth STA, determining, by the AP, the fifth STA as the first STA, wherein the~~

fifth STA is one of the plurality of second STAs, and the third role corresponding to the fifth STA is a receiver in the sensing session; or

when the role of the AP in the sensing session is a receiver, and fifth information from a sixth STA indicates that the sixth STA participates in the sensing session based on a third role corresponding to the sixth STA, determining, by the AP, the sixth STA as the first STA, wherein the sixth STA is one of the plurality of second STAs, and the third role corresponding to the sixth STA is a transmitter in the sensing session.

22. The method according to claim 21, wherein when the fifth information from the fifth STA indicates that the fifth STA participates in the sensing session based on the third role corresponding to the fifth STA, but the fifth STA does not participate in the sensing session based on a fourth sensing parameter corresponding to the fifth STA, or when the fifth information from the sixth STA indicates that the sixth STA participates in the sensing session based on the third role corresponding to the sixth STA, but the sixth STA does not participate in the sensing session based on a fourth sensing parameter corresponding to the sixth STA, the fifth information further comprises a fifth sensing parameter of the first STA; and

the method further comprises:

determining, by the AP based on the fifth sensing parameter of the first STA, the first sensing parameter corresponding to the first STA.

23. The method according to any one of claims 17 to 22, wherein that the fifth frame comprises fourth information specifically comprises:

the fifth frame comprises a sensing request element field, and the fourth information is located in the sensing request element field.

24. The method according to any one of claims 17 to 23, wherein that the sixth frame comprises fifth information specifically comprises:

the sixth frame comprises a sensing response element field, and the fifth information is located in the sensing response element field.

25. The method according to any one of claims 1 to 24, wherein the method further comprises:

receiving, by the AP, sensing requirement information from an initiator STA.

26. A sensing session establishment method, wherein the method comprises:

receiving, by a station STA, a first frame from an access point AP, wherein the first frame comprises first information, the first information indicates a first role of the STA in a sensing session, and the first role of the STA in the sensing session is a transmitter and/or a receiver; and

sending, by the STA, a second frame to the AP, wherein the second frame comprises confirm information for the first frame.

27. The method according to claim 26, wherein the first frame further comprises a first

~~sensing parameter, and the first sensing parameter is used by the STA to perform sensing measurement and/or sensing data reporting in the sensing session.~~

~~28. The method according to claim 27, wherein the first sensing parameter comprises one or more of the following parameters: an operation parameter, a feedback type, a sensing type, or a feedback address.~~

~~29. The method according to any one of claims 26 to 28, wherein that the first frame comprises first information specifically comprises:~~

~~the first frame comprises a common information field and a user information field, and the first information is located in the common information field and/or the user information field;~~

~~the first frame comprises a station information field, and the first information is located in the station information field; or~~

~~the first frame comprises a common information field and a station information field, and the first information is located in the common information field and/or the station information field.~~

~~30. The method according to any one of claims 26 to 29, wherein that the second frame comprises confirm information for the first frame specifically comprises:~~

~~the second frame comprises a confirm element field, and the confirm information is located in the confirm element field.~~

~~31. The method according to any one of claims 26 to 30, wherein the method further comprises:~~

~~receiving, by the STA, a third frame from the AP, wherein the third frame comprises second information, and the second information is used to request the STA to participate in the sensing session; and~~

~~sending, by the STA, a fourth frame to the AP, wherein the fourth frame comprises third information, and the third information indicates whether the STA confirms to participate in the sensing session.~~

~~32. The method according to claim 31, wherein when the third information indicates that the STA confirms to participate in the sensing session, the third information further comprises a second role supported by the STA in the sensing session and a second sensing parameter corresponding to the second role.~~

~~33. The method according to claim 31 or 32, wherein that the third frame comprises second information specifically comprises:~~

~~the third frame comprises a common information field, and the second information is located in the common information field; or~~

~~the third frame comprises a sensing request element field, and the second information is located in the sensing request element field.~~

34. The method according to any one of claims 31 to 33, wherein that the fourth frame comprises third information specifically comprises:

the fourth frame comprises a sensing confirm element field, and the third information is located in the sensing confirm element field; or

the fourth frame comprises a sensing response element field, and the third information is located in the sensing response element field.

35. The method according to any one of claims 26 to 28, wherein that the first frame comprises first information specifically comprises:

the first frame comprises a sensing request element field, and the first information is located in the sensing request element field.

36. The method according to claim 35, wherein that the second frame comprises confirm information for the first frame specifically comprises:

the second frame comprises a sensing response element field, and the confirm information is located in the sensing response field.

37. The method according to claim 35 or 36, wherein the method further comprises:

receiving, by the STA, a fifth frame from the AP, wherein the fifth frame comprises fourth information, and the fourth information is used to request the STA to participate in the sensing session by using a third role and a fourth sensing parameter; and

sending, by the STA, a sixth frame to the AP, wherein the sixth frame comprises fifth information, and the fifth information indicates whether the STA confirms to participate in the sensing session by using the third role and the fourth sensing parameter.

38. The method according to claim 37, wherein when the fifth information indicates that the STA participates in the sensing session based on the third role, but the STA does not participate in the sensing session based on the fourth sensing parameter, the fifth information further comprises a fifth sensing parameter of the STA.

39. The method according to claim 37 or 38, wherein that the fifth frame comprises fourth information specifically comprises:

the fifth frame comprises a sensing request element field, and the fourth information is located in the sensing request element field.

40. The method according to any one of claims 37 to 39, wherein that the sixth frame comprises fifth information specifically comprises:

the sixth frame comprises a sensing response element field, and the fifth information is located in the sensing response element field.

41. The method according to any one of claims 26 to 40, wherein the method further comprises:

~~sending, by the STA, sensing requirement information to the AP.~~

~~42~~12. A communication apparatus, comprising a processor and a memory, wherein the memory is configured to store one or more computer programs, the one or more computer programs comprise computer-executable instructions, and when the communication apparatus runs, the processor executes the one or more computer programs stored in the memory, to enable the communication apparatus to perform the method according to any one of claims 1 to ~~25~~6, or perform the method according to any one of claims ~~26~~ 7 to ~~41~~11.

13. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program or instructions, and when the computer program or instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 6, or perform the method according to any one of claims 7 to 11.

~~43~~14. A computer program product, wherein when the computer program product runs on a computer, the computer is enabled to perform the method according to any one of claims 1 to ~~25~~6, or perform the method according to any one of claims ~~26~~ 7 to ~~41~~11.