

CLAIMS

What is claimed is:

1. A communication method, comprising:

5 sending, by a sensing initiation device, an indication for power delay profile (PDP) data feedback to a sensing response device, to trigger the sensing response device to generate, based on channel state information (CSI) data, PDP data for feedback; and

receiving, by the sensing initiation device, only a part of PDP data in a plurality of parts of the generated PDP data from the sensing response device.

10 2. The method according to claim 1, wherein the sending an indication for PDP data feedback comprises:

sending, by the sensing initiation device, the indication for PDP data feedback to the sensing response device by using at least one of a trigger frame, a null data packet announcement (NDPA) frame, an announcement frame, or a PDP frame for indicating PDP data feedback.

15 3. The method according to claim 2, wherein a common information field or a dedicated information field in the trigger frame indicates to perform PDP data feedback.

4. The method according to claim 3, wherein a trigger type field comprised in the common information field in the trigger frame indicates to perform PDP data feedback.

5. The method according to claim 2, wherein a sounding dialog token field or a dedicated information field in the NDPA frame indicates to perform PDP data feedback.

20 6. The method according to claim 5, wherein an association identifier (AID) field comprised in the dedicated information field in the NDPA frame indicates to perform PDP data feedback.

7. The method according to claim 2, wherein the PDP frame comprises a multi-input multi-output (MIMO) control field, and the MIMO control field comprises an indication for at least one of a number of columns, a number of rows, or a number of quantized bits of a matrix element of a PDP matrix for feedback.

8. The method according to claim 1, wherein the receiving a part of PDP data comprises: receiving, by the sensing initiation device, the part of PDP data from the sensing response device by using a PDP report frame.

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

30 sending, by the sensing initiation device, at least one of an indication for a range of interested or an indication for an offset to the sensing response device.

10. The method according to claim 9, wherein

the sensing initiation device sends the at least one of the indication for the range of interested or the indication for the offset to the sensing response device by using at least one of a trigger

frame, a null data packet announcement NDPA frame, an announcement frame, or a PDP frame for indicating PDP data feedback.

11. The method according to claim 10, wherein a trigger dependent information field comprised in a common information field in the trigger frame indicates at least one of the range of interested or the offset.

12. A communication method, comprising:

obtaining, by a sensing response device, channel state information (CSI) data based on channel estimation;

generating, by the sensing response device, power delay profile (PDP) data based on the CSI data; and

feeding back, by the sensing response device, only a part of PDP data in a plurality of parts of the generated PDP data.

13. The method according to claim 12, further comprising:

receiving, by the sensing response device, an indication for PDP data feedback from the sensing initiation device before the CSI data is obtained based on channel estimation.

14. The method according to claim 13, wherein the generating PDP data comprises:

generating, by the sensing response device, the PDP data based on the CSI data in response to the reception of the indication for PDP data feedback.

15. The method according to claim 13, wherein the receiving an indication for PDP data feedback comprises:

receiving, by the sensing response device, the indication for PDP data feedback from the sensing initiation device by using at least one of a trigger frame, a null data packet announcement (NDPA) frame, an announcement frame, or a PDP frame for indicating PDP data feedback.

16. The method according to claim 15, wherein a common information field or a dedicated information field in the trigger frame indicates to perform PDP data feedback.

17. The method according to claim 16, wherein a trigger type field comprised in the common information field in the trigger frame indicates to perform PDP data feedback.

18. The method according to claim 15, wherein a sounding dialog token field or a dedicated information field in the NDPA frame indicates to perform PDP data feedback.

19. The method according to claim 18, wherein an association identifier (AID) field comprised in the dedicated information field in the NDPA frame indicates to perform PDP data feedback.

20. The method according to claim 15, wherein the PDP frame comprises a multi-input multi-output (MIMO) control field, and the MIMO control field comprises an indication for at least one of a number of columns, a number of rows, or a number of quantized bits of a matrix element of a

PDP matrix for feedback.

21. The method according to claim 20, wherein the feeding back a part of PDP data comprises:
selecting, by the sensing response device, the part of PDP data to be fed back from the
generated PDP data based on the indication for the at least one of the number of columns, the
5 number of rows, or the number of quantized bits of the matrix element of the PDP matrix for
feedback.

22. The method according to claim 12, wherein the feeding back a part of PDP data comprises:
feeding back, by the sensing response device, the part of PDP data in the generated PDP data
by using a PDP report frame.

10 23. The method according to claim 12, wherein the feeding back a part of PDP data comprises:
feeding back, by the sensing response device, the part of PDP data based on a propagation
distance of a sensing signal.

24. The method according to claim 23, wherein the feeding back a part of PDP data comprises:
receiving, by the sensing response device, an indication for a range of interested of the sensing
15 signal from the sensing initiation device; and
feeding back, by the sensing response device, the part of PDP data based at least on the range
of interested.

25. The method according to claim 24, wherein the feeding back the part of PDP data based
at least on the range of interested comprises:

20 receiving, by the sensing response device, an indication for an offset from the sensing
initiation device; and

feeding back, by the sensing response device, the part of PDP data based on the range of
interested and the offset.

26. The method according to claim 25, wherein
25 the sensing response device receives at least one of the indication for the range of interested
or the indication for the offset from the sensing initiation device by using at least one of a trigger
frame, a null data packet announcement (NDPA) frame, an announcement frame, or a PDP frame
for indicating PDP data feedback.

27. The method according to claim 26, wherein a trigger dependent information field
30 comprised in a common information field in the trigger frame indicates at least one of the range of
interested or the offset.

28. The method according to claim 12, wherein the feeding back a part of PDP data comprises:
feeding back, by the sensing response device, the part of PDP data in the generated PDP data
to the sensing initiation device.

35 29. A communication device, comprising:

a processor, wherein the processor is coupled to a memory, and the memory stores instructions;
and

when the instructions are executed by the processor, the method according to any one of claims 1 to 11 or claims 12 to 28 is performed.

5 30. A computer-readable storage medium storing a program, wherein when at least a 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 11 or claims 12 to 28.

10 31. A computer program product, wherein the computer program product comprises computer-executable instructions, and when the computer-executable instructions are executed, the method according to any one of claims 1 to 11 or claims 12 to 28 is implemented.

32. A chip, comprising a processing circuit, configured to perform the method according to any one of claims 1 to 11 or claims 12 to 28.