

WHAT IS CLAIMED IS:

1. A method for determining a hybrid automatic repeat request (HARQ) codebook, performed by~~applied to~~ a terminal device, the method comprising:

determining, according to HARQ enabling types for a plurality of physical downlink shared channel (PDSCH) transmissions transmitted on a specified HARQ feedback resource, an HARQ codebook corresponding to the specified HARQ feedback resource.

2. The method according to claim 1, wherein determining, according to the HARQ enabling types for the plurality of PDSCH transmissions transmitted on the specified HARQ feedback resource, the HARQ codebook corresponding to the specified HARQ feedback resource comprises:

in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ enabled, determining, according to a result for the plurality of PDSCH transmissions, HARQ feedback information corresponding to the plurality of PDSCH transmissions in the HARQ codebook.

3. The method according to claim 1, wherein determining, according to the HARQ enabling types for the plurality of PDSCH transmissions transmitted on the specified HARQ feedback resource, the HARQ codebook corresponding to the specified HARQ feedback resource comprises one of:

in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ disabled, determining that the HARQ codebook is empty;

in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ disabled, determining that HARQ feedback information corresponding to the plurality of PDSCH transmissions in the HARQ codebook is non- acknowledgement (NACK) information; or

in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ disabled, determining, according to a result for the plurality of PDSCH transmissions, HARQ feedback information corresponding to the plurality of PDSCH transmissions in the HARQ codebook.

4. The method according to claim 1, wherein determining, according to the HARQ enabling types for the plurality of PDSCH transmissions transmitted on the specified HARQ feedback resource, the HARQ codebook corresponding to the specified HARQ feedback resource comprises:

in response to HARQ enabling types for a part of the plurality of PDSCH transmissions

being HARQ enabled, determining that the HARQ codebook only comprises HARQ feedback information corresponding to the part of PDSCH transmissions.

5. The method according to claim 1, wherein determining, according to the HARQ enabling types for the plurality of PDSCH transmissions transmitted on the specified HARQ feedback resource, the HARQ codebook corresponding to the specified HARQ feedback resource comprises:

in response to HARQ enabling types for a part of the plurality of PDSCH transmissions being HARQ enabled, determining that the HARQ codebook is empty.

6. The method according to claim 5, after determining that the HARQ codebook is empty, the method further comprises:

in response to receiving an HARQ feedback indication from a network device, determining to send HARQ feedback information corresponding to the part of PDSCH transmissions to the network device.

7. The method according to any one of claims 1 to 6, further comprising:

feeding back HARQ feedback information corresponding to the plurality of PDSCH transmissions to the network device on the specified HARQ feedback resource according to the HARQ codebook.

8. The method according to claim 7, wherein feeding back HARQ feedback information corresponding to the plurality of PDSCH transmissions to the network device on the specified HARQ feedback resource according to the HARQ codebook comprises:

in response to the HARQ codebook being empty, giving up a feedback of the HARQ feedback information to the network device on the specified HARQ feedback resource; or

in response to the HARQ codebook being non-empty, feeding back the HARQ feedback information in the HARQ codebook to the network device on the specified HARQ feedback resource.

9. A method for receiving HARQ feedback information, ~~performed by~~ applied to a network device (2300), the method comprising:

determining, according to HARQ enabling types for a plurality of physical downlink shared channel (PDSCH) transmissions transmitted on a specified HARQ feedback resource, a reception mode of HARQ feedback information.

10. The method according to claim 9, wherein determining, according to HARQ enabling types for the plurality of PDSCH transmissions transmitted on the specified HARQ feedback resource, the reception mode of HARQ feedback information comprises:

in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ enabled, determining to receive the HARQ feedback information on the specified HARQ feedback resource.

11. The method according to claim 9, wherein determining, according to HARQ enabling types for the plurality of PDSCH transmissions transmitted on the specified HARQ feedback resource, the reception mode of HARQ feedback information comprises one of:

in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ disabled, determining not to receive the HARQ feedback information on the specified HARQ feedback resource; or

in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ disabled, determining to receive the HARQ feedback information on the specified HARQ feedback resource and to discard received HARQ feedback information.

12. The method according to claim 9, wherein determining, according to HARQ enabling types for the plurality of PDSCH transmissions transmitted on the specified HARQ feedback resource, the reception mode of HARQ feedback information comprises:

in response to HARQ enabling types for a part of the plurality of PDSCH transmissions being HARQ enabled, determining to receive the HARQ feedback information on the specified HARQ feedback resource.

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

in response to failing to receive the HARQ feedback information of a terminal device on the specified HARQ feedback resource, sending an HARQ feedback indication to the terminal device to indicate the terminal device to feed back HARQ feedback information corresponding to the part of PDSCH transmissions.

~~14. An apparatus for determining an HARQ codebook, applied to a terminal device, the apparatus comprising:~~

~~a processing unit, configured to determine, according to HARQ enabling types for a plurality of physical downlink shared channel (PDSCH) transmissions on a specified HARQ feedback resource, an HARQ codebook corresponding to the specified HARQ feedback resource.~~

~~15. The apparatus according to claim 14, wherein the processing unit is specifically configured to:~~

~~in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ enabled, determine, according to a result for the plurality of PDSCH transmissions,~~

~~HARQ feedback information corresponding to the plurality of PDSCH transmissions in the HARQ codebook.~~

~~16. The apparatus according to claim 14, wherein the processing unit is specifically configured to:~~

~~in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ disabled, determine that the HARQ codebook is empty;~~

~~in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ disabled, determine that HARQ feedback information corresponding to the plurality of PDSCH transmissions in the HARQ codebook is non-acknowledgement (NACK) information;~~
~~or~~

~~in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ disabled, determine, according to a result for the plurality of PDSCH transmissions, HARQ feedback information corresponding to the plurality of PDSCH transmissions in the HARQ codebook.~~

~~17. The apparatus according to claim 14, wherein the processing unit is specifically configured to:~~

~~in response to HARQ enabling types for a part of the plurality of PDSCH transmissions being HARQ enabled, determine that the HARQ codebook only comprises HARQ feedback information corresponding to the part of PDSCH transmissions.~~

~~18. The apparatus according to claim 14, wherein the processing unit is specifically configured to:~~

~~in response to HARQ enabling types for a part of the plurality of PDSCH transmissions being HARQ enabled, determine that the HARQ codebook is empty.~~

~~19. The apparatus according to claim 18, wherein the processing unit is specifically configured to, in response to receiving an HARQ feedback indication from a network device, determine to send HARQ feedback information corresponding to the part of PDSCH transmissions to the network device.~~

~~20. The apparatus according to any one of claim 14 to 19, further comprising:~~

~~a transceiver unit, configured to feed back HARQ feedback information corresponding to the plurality of PDSCH transmissions to the network device on the specified HARQ feedback resource according to the HARQ codebook.~~

~~21. The apparatus according to claim 20, wherein the transceiver unit is specifically configured to:~~

~~in response to the HARQ codebook being empty, give up a feedback of the HARQ feedback information to the network device on the specified HARQ feedback resource; or~~

~~in response to the HARQ codebook being non-empty, feed back the HARQ feedback information in the HARQ codebook to the network device on the specified HARQ feedback resource.~~

~~22. An apparatus for receiving HARQ feedback information, applied to a network device, the apparatus comprising:~~

~~a processing unit, configured to determine, according to HARQ enabling types for a plurality of physical downlink shared channel (PDSCH) transmissions on a specified HARQ feedback resource, a reception mode of HARQ feedback information.~~

~~23. The apparatus according to claim 22, wherein the processing unit is specifically configured to:~~

~~in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ-enabled, determine to receive the HARQ feedback information on the specified HARQ feedback resource.~~

~~24. The apparatus according to claim 22, wherein the processing unit is specifically configured to:~~

~~in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ-disabled, determine not to receive the HARQ feedback information on the specified HARQ feedback resource; or,~~

~~in response to the HARQ enabling types for the plurality of PDSCH transmissions being HARQ-disabled, determine to receive the HARQ feedback information on the specified HARQ feedback resource and to discard received HARQ feedback information.~~

~~25. The apparatus according to claim 22, wherein the processing unit is specifically configured to:~~

~~in response to HARQ enabling types for a part of the plurality of PDSCH transmissions being HARQ-enabled, determining to receive the HARQ feedback information on the specified HARQ feedback resource.~~

~~26. The apparatus according to claim 25, further comprising:~~

~~a transceiver unit, configured to in response to failing to receive the HARQ feedback information of a terminal device on the specified HARQ feedback resource, send an HARQ feedback indication to the terminal device to indicate the terminal device to feed back HARQ feedback information corresponding to the part of PDSCH transmissions.~~

~~27~~14. A terminal device for determining an HARQ codebook, comprising: a processor and a memory for storing a computer program, wherein when the computer program is executed by the processor, the device is caused to execute the method according to any one of claims 1 to 8.

~~28~~15. A network device for receiving HARQ feedback information, comprising: a processor and a memory for storing a computer program, wherein when the computer program is executed by the processor, the device is caused to execute the method according to any one of claims 9 to 13.

~~29~~16. A device for determining an HARQ codebook, comprising:
an interface circuit for receiving and transmitting code instructions to a processor; and
the processor for executing the code instructions to perform the method according to any one of claims 1 to 8.

~~30~~17. A device for receiving HARQ feedback information, comprising:
an interface circuit for receiving and transmitting code instructions to a processor; and
the processor for executing the code instructions to perform the method according to any one of claims 9 to 13.

~~31~~18. A non-transitory computer-readable storage medium storing instructions, wherein when the instructions are executed, the method according to any one of claims 1 to 8 is implemented.

~~32~~19. A non-transitory computer-readable storage medium storing instructions, wherein when the instructions are executed, the method according to any one of claims 9 to 13 is implemented.