

to an embodiment of the disclosure. As shown in the figure, in the embodiment, the time-domain location offset of the PDSCH relative to a resource set or search space of the PDCCH is indicated through RRC signaling. The resource set or search space of the PDCCH is a resource range that may include the PDCCH of a terminal, and a network device may indicate the resource set or search space of the PDCCH to the terminal at first. Therefore, the time-domain location offset of the PDSCH relative to the resource set or search space of the PDCCH may be indicated to indicate a certain resource of the PDSCH scheduled by the PDCCH in regardless of a symbol where the PDCCH is located. Therefore, flexible, efficient and low-delay data channel resource allocation may be implemented. The method in the embodiment may also be adopted to indicate a time-domain location offset of a PUSCH relative to the resource set or search space of the PDCCH.

Referring to FIG. 3F, a data channel is a PDSCH, and a control channel is a PDCCH. FIG. 3F illustrates a time-domain location offset of a PDSCH relative to a resource set or search space of a PDCCH, indicated through the PDCCH according to an embodiment of the disclosure. As shown in the figure, in the embodiment, the time-domain location offset of the PDSCH relative to the resource set or search space of the PDCCH is indicated through the PDCCH rather than RRC signaling. Compared with indication by RRC signaling, indicating the offset between the PDSCH and the resource set or search space of the PDCCH through the PDCCH may dynamically indicate a resource of the scheduled PDSCH. Therefore, more flexible data channel resource allocation may be implemented. However, compared with indication by RRC signaling, this manner is relatively high in signaling overhead. The method in the embodiment may also be adopted to indicate a time-domain location offset of a PUSCH relative to the resource set or search space of the PDCCH.

Referring to FIG. 3G, a data channel is a PDSCH, and a control channel is a PDCCH. FIG. 3G is a schematic diagram of jointly indicating a time-domain location offset of a PDSCH relative to a PDCCH through RRC signaling and the PDCCH according to an embodiment of the disclosure. As shown in the figure, in the embodiment, time-domain locations of multiple PDSCHs relative to a PDCCH are indicated through RRC signaling, and then an offset in the offsets is indicated through the PDCCH. Compared with indication by RRC signaling, a PDCCH may dynamically indicate a resource of the scheduled PDSCH to improve flexibility of data channel

resource allocation. Compared with indication by a PDCCH only, RRC signaling may reduce a signaling overhead and improve efficiency of data channel resource allocation. The method in the embodiment may also be adopted to indicate a time-domain location offset of a PUSCH relative to a PDCCH. The method in the embodiment may further
5 be adopted to indicate a time-domain location offset of a PDSCH/PUSCH relative to a resource set or search space of a PDCCH.

Referring to FIG. 3H, a data channel is a PDSCH, and a control channel is a PDCCH. FIG. 3H is a schematic diagram of determining a time-domain location offset of a PDSCH relative to a PDCCH in a case that the PDCCH overturns an indication
10 from RRC signaling according to an embodiment of the disclosure. As shown in the figure, in the embodiment, a time-domain location of a PDSCH relative to a PDCCH is indicated through RRC signaling, and then a time-domain location offset of a new PDSCH relative to the PDCCH is indicated through the PDCCH. If a terminal receives different time-domain location offsets from the RRC signaling and the PDCCH, the
15 time-domain location offset indicated by the PDCCH is adopted to determine the time-domain location offset of the PDSCH relative to the PDCCH. Compared with indication by the RRC signaling only, this manner in the embodiment may dynamically indicate a resource of the scheduled PDSCH, which may improve flexibility and accuracy of data channel resource allocation. Compared with indication by the PDCCH only, this
20 manner in the embodiment may reduce a signaling overhead. The method in the embodiment may also be adopted to indicate a time-domain location offset of a PUSCH relative to the PDCCH. The method in the embodiment may further be adopted to indicate a time-domain location offset of a PDSCH/PUSCH relative to a resource set or search space of the PDCCH.

Referring to FIG. 3I, a data channel is a PDSCH, the PDSCH including time-domain resources in multiple frequency-domain resource elements, and a control channel is a PDCCH. FIG. 3I is a schematic diagram of indicating time-domain location offsets of time-domain resources in multiple frequency-domain resource elements
25 relative to a PDCCH through the PDCCH according to an embodiment of the disclosure. As shown in the figure, in the embodiment, the time-domain location offset of each time-domain resource relative to the PDCCH is indicated through the PDCCH, and different time-domain location offsets are indicated for the multiple frequency-domain resource elements. In such a manner, the time-domain resources of the PDSCH in
30

different frequency-domain resource elements may start from different time-domain locations, so that more flexible data channel resource allocation is implemented. The method in the embodiment may also be adopted to indicate a time-domain location offset of a PUSCH relative to a PDCCH. The method in the embodiment may further
5 be adopted to indicate a time-domain location offset of a PDSCH/PUSCH relative to a resource set or search space of a PDCCH. A method of joint indication by RRC signaling and a PDCCH or a method of the PDCCH overturning indication from RRC signaling may also be adopted in the embodiment.

Referring to FIG. 3J, a data channel is a PDSCH, and a control channel is a
10 PDCCH. FIG. 3J is a schematic diagram of indicating a time-domain location offset of a PDSCH relative to a PDCCH and a length of the PDSCH according to an embodiment of the disclosure. As shown in the figure, in the embodiment, not only the time-domain location offset of the PDSCH relative to the PDCCH is indicated through the PDCCH, but also a time-domain length of the PDSCH is indicated through the PDCCH. In such
15 a manner, not only a location of the PDSCH may be flexibly configured, but also the length of the PDSCH may be flexibly configured, so that more flexible and efficient data channel resource allocation is implemented. The method in the embodiment may also be adopted to indicate a time-domain location offset of a PUSCH relative to a PDCCH and a length thereof. The method in the embodiment may further be adopted
20 to indicate a time-domain location offset of a PDSCH/PUSCH relative to a resource set or search space of a PDCCH and a length thereof. A method of joint indication by RRC signaling and a PDCCH or a method of the PDCCH overturning indication from the RRC signaling may also be adopted in the embodiment. By the method in the embodiment, time-domain location offsets of different PDSCHs/PUSCHs relative to a
25 PDCCH and lengths thereof may also be indicated for multiple frequency-domain resource elements.

Referring to FIG. 3K, a data channel is a PDSCH, and a control channel is a PDCCH. FIG. 3K is a schematic diagram of indicating a frequency-domain location offset of a PDSCH relative to a PDCCH through RRC signaling according to an
30 embodiment of the disclosure. As shown in the figure, in the embodiment, the frequency-domain location offset rather than the time-domain location offset of the PDSCH relative to the PDCCH is indicated through RRC signaling. Since the PDCCH and the PDSCH are relatively close in a frequency domain, in the embodiment, a

frequency-domain resource of the PDSCH may be flexibly allocated, and meanwhile, a signaling overhead in indicating the frequency-domain resource of the PDSCH is reduced. The method in the embodiment may also be adopted to indicate a frequency-domain location offset of a PUSCH relative to the PDCCH. The method in the
5 embodiment may further be adopted to indicate a frequency-domain location offset of a PDSCH/PUSCH relative to a resource set or search space of the PDCCH. By the method in the embodiment, frequency-domain location offsets of different PDSCHs/PUSCHs relative to the PDCCH may also be indicated for multiple time-domain resource elements.

10 Referring to FIG. 3L, a data channel is a PDSCH, and a control channel is a PDCCH. FIG. 3L illustrates a frequency-domain location offset of a PDSCH relative to a PDCCH, indicated through the PDCCH according to an embodiment of the disclosure. As shown in the figure, in the embodiment, the frequency-domain location offset rather than the time-domain location offset of a PDSCH relative to a PDCCH is indicated
15 through the PDCCH. Since the PDCCH and the PDSCH are relatively close in a frequency domain, in the embodiment, a frequency-domain resource of the PDSCH may be flexibly allocated, and meanwhile, a signaling overhead in indicating the frequency-domain resource of the PDSCH is reduced. The method in the embodiment may also be adopted to indicate a frequency-domain location offset of a PUSCH relative
20 to the PDCCH. The method in the embodiment may further be adopted to indicate a frequency-domain location offset of a PDSCH/PUSCH relative to a resource set or search space of the PDCCH. A method of joint indication by RRC signaling and a PDCCH or a method of the PDCCH overturning indication from the RRC signaling may also be adopted in the embodiment. By the method in the embodiment, frequency-
25 domain location offsets of different PDSCHs/PUSCHs relative to the PDCCH may also be indicated for multiple time-domain resource elements.

Referring to FIG. 3M, a data channel is a PDSCH, and a control channel is a PUCCH. FIG. 3M is a schematic diagram of indicating a time-domain location offset of a PUCCH relative to a PDSCH through RRC signaling according to an
30 embodiment of the disclosure. As shown in the figure, in the embodiment, the time-domain location offset of a PUCCH relative to a PDSCH is indicated through RRC signaling. The time-domain location offset may take a symbol, several symbols, a

CLAIMS

1. A method for indicating a channel location, comprising:

5 sending, by a network-side device, at least one piece of indication information,
 wherein the at least one piece of indication information is configured to indicate
 an offset of a frequency-domain starting location and/or a frequency-domain ending
 location of a frequency-domain resource of a data channel relative to a frequency-
 domain starting location of a resource set or a frequency-domain starting location of a
10 search space of a first control channel, and the first control channel is a channel for
 scheduling the data channel.

2. The method of claim 1, wherein the at least one piece of indication information
comprises second indication information, and the second indication information is
15 transmitted through Downlink Control Information (DCI); and the second indication
 information is configured to indicate the offset of the frequency-domain starting
 location and/or the frequency-domain ending location of the frequency-domain
 resource of the data channel relative to the frequency-domain starting location of the
 resource set or the frequency-domain starting location of the search space of the first
20 control channel.

3. The method of claim 1 or 2, wherein the at least one piece of indication information
comprises third indication information, the third indication information is configured
to indicate a time-domain length of the data channel, and the third indication
25 information is transmitted through RRC signaling and/or DCI.

4. A method for indicating a channel location, comprising:

 receiving, by a terminal, at least one piece of indication information,
 wherein the at least one piece of indication information is configured to indicate
30 an offset of a frequency-domain starting location and/or a frequency-domain ending
 location of a frequency-domain resource of a data channel relative to a frequency-
 domain starting location of a resource set or a frequency-domain starting location of a
 search space of a first control channel, and the first control channel is a channel for

scheduling the data channel.

5. The method of claim 4, wherein the at least one piece of indication information comprises second indication information, and the second indication information is transmitted through Downlink Control Information (DCI); and the second indication information is configured to indicate the offset of the frequency-domain starting location and/or the frequency-domain ending location of the frequency-domain resource of the data channel relative to the frequency-domain starting location of the resource set or the frequency-domain starting location of the search space of the first control channel.

6. The method of claim 4 or 5, wherein the at least one piece of indication information comprises third indication information, the third indication information is configured to indicate a time-domain length of the data channel, and the third indication information is transmitted through RRC signaling and/or DCI.

7. A network-side device, comprising a processing unit and a communication unit, wherein
the processing unit is configured to control the communication unit to send at least one piece of indication information,
wherein the at least one piece of indication information is configured to indicate an offset of a frequency-domain starting location and/or a frequency-domain ending location of a frequency-domain resource of a data channel relative to a frequency-domain starting location of a resource set or a frequency-domain starting location of a search space of a first control channel, and the first control channel is a channel for scheduling the data channel.

8. The network-side device of claim 7, wherein the at least one piece of indication information comprises second indication information, and the second indication information is transmitted through Downlink Control Information, DCI; and the second indication information is configured to indicate the offset of the frequency-domain starting location and/or the frequency-domain ending location of the frequency-domain resource of the data channel relative to the frequency-domain starting location of the

resource set or the frequency-domain starting location of the search space of the first control channel.

9. The network-side device of claim 7 or 8, wherein the at least one piece of indication
5 information comprises third indication information, the third indication information is configured to indicate a time-domain length of the data channel, and the third indication information is transmitted through RRC signaling and/or DCI.

10. A terminal, comprising a processing unit and a communication unit, wherein
10 the processing unit is configured to control the communication unit to receive at least one piece of indication information,
wherein the at least one piece of indication information is configured to indicate an offset of a frequency-domain starting location and/or a frequency-domain ending location of a frequency-domain resource of a data channel relative to a frequency-
15 domain starting location of a resource set or a frequency-domain starting location of a search space of a first control channel, and the first control channel is a channel for scheduling the data channel.

11. The terminal of claim 10, wherein the at least one piece of indication information
20 comprises second indication information, and the second indication information is transmitted through Downlink Control Information (DCI); and the second indication information is configured to indicate the offset of the frequency-domain starting location and/or the frequency-domain ending location of the frequency-domain resource of the data channel relative to the frequency-domain starting location of the
25 resource set or the frequency-domain starting location of the search space of the first control channel.

12. The terminal of claim 10 or 11, wherein the at least one piece of indication
information comprises third indication information, the third indication information is
30 configured to indicate a time-domain length of the data channel, and the third indication information is transmitted through RRC signaling and/or DCI.

13. A network-side device, comprising one or more processors, a memory, a

transceiver and one or more programs, the one or more programs being stored in the memory and configured to be executed by the one or more processors and the programs comprising instructions configured to execute the steps in the method of any one of claims 1-3.

5

14. A terminal, comprising one or more processors, a memory, a communication interface and one or more programs, the one or more programs being stored in the memory and configured to be executed by the one or more processors and the programs comprising instructions configured to execute the steps in the method of any one of

10 claims 4-6.

15. A computer-readable storage medium, having stored a computer program thereon configured for electronic data exchange, wherein the computer program enables a computer to execute the method of any one of claims 1-3 or any one of claims 4-6.

15