

CLAIMS

What is claimed is:

1. An information determining method, applied to user equipment UE, wherein the method comprises:

5 monitoring a target channel or a target signal to acquire a first characteristic, wherein the first characteristic is a characteristic of the target channel or the target signal; and

 determining first information based on the first characteristic, wherein

 in a case that the target channel or the target signal is used to indicate a first power-
10 saving mode of the UE, the first information is a second power-saving mode of the UE; or in a case that the target channel is used to indicate whether the UE monitors a physical downlink control channel PDCCH associated with the target channel, or the target signal is used to indicate whether the UE monitors a PDCCH associated with the target
15 signal, the first information is a second characteristic of the PDCCH or the second power-saving mode of the UE;

 wherein the determining first information based on the first characteristic comprises:

 determining the first information based on the first characteristic and a first
correspondence, wherein

20 the first correspondence is a correspondence between the first characteristic and the first information;

 wherein the first characteristic of the target channel comprises at least one of the following: a downlink control information DCI format of the target channel, or a radio network temporary identifier RNTI of the target channel; or,

25 wherein the first characteristic of the target signal comprises at least one of the following: a root sequence of a target sequence, a cyclic shift value of the target sequence, a generator polynomial of the target sequence, an initialization mode of the

target sequence, or a cover code of the target sequence, wherein the target sequence is a sequence of the target signal.

2. The method according to claim 1, wherein the first correspondence is configured by a network device or predefined.

5 3. The method according to claim 1 or 2, wherein the first characteristic of the target channel further comprises at least one of the following: a bandwidth part BWP in which the target channel is located, a search space SS in which the target channel is located, a control resource set in which the target channel is located.

10 4. The method according to claim 1, wherein the target sequence comprises at least one of the following: a ZC sequence, an m sequence, or a Gold sequence.

5. The method according to claim 4, wherein in a case that the target sequence comprises the ZC sequence, the first characteristic of the target signal comprises at least one of the following: the root sequence of the target sequence or the cyclic shift value of the target sequence; or

15 in a case that the target sequence comprises the m sequence, the first characteristic of the target signal comprises at least one of the following: the generator polynomial of the target sequence or the cyclic shift value of the target sequence; or

20 in a case that the target sequence comprises the Gold sequence, the first characteristic of the target signal comprises at least one of the following: the generator polynomial of the target sequence, the cyclic shift value of the target sequence, or the initialization mode of the target sequence.

25 6. The method according to claim 1, wherein the second characteristic comprises at least one of the following: a BWP in which the PDCCH is located, an SS in which the PDCCH is located, a control resource set in which the PDCCH is located, a DCI format of the PDCCH, or an RNTI of the PDCCH.

7. The method according to claim 1, wherein the first power-saving mode or the second power-saving mode comprises at least one of the following parameters:

 a first time gap, wherein the first time gap is a time gap between a first end time and a first start time, the first end time is an end time of the PDCCH, and the first start

time is a start time of a physical downlink shared channel PDSCH scheduled by the PDCCH;

5 a second time gap, wherein the second time gap is a time gap between a second end time and a second start time, the second end time is an end time of the PDSCH scheduled by the PDCCH, and the second start time is a start time at which feedback information is transmitted;

a third time gap, wherein the third time gap is a time gap between the first end time and a third start time, and the third start time is a start time of a physical uplink shared channel PUSCH scheduled by the PDCCH;

10 the maximum number of downlink multiple-input multiple-output MIMO layers;
the maximum number of uplink MIMO layers;
a parameter related to PDCCH monitoring; or
a parameter related to discontinuous reception DRX.

8. The method according to claim 7, wherein the first power-saving mode or the
15 second power-saving mode further comprises at least one of the following parameters:

the number of transmit antennas or the number of transmit channels;
the number of receive antennas or the number of receive channels;
simultaneously activated uplink component carriers;
simultaneously activated downlink component carriers;
20 a maximum rate for uplink transmission;
a maximum rate for downlink transmission;
the number of channel state information CSI report(s) simultaneously processable
by the UE;
the number of beam management report(s) simultaneously processable by the UE;
25 the number of measurement resource(s) simultaneously receivable or processable
by the UE;
a delay related to a CSI report; or
a delay related to a beam management report.

9. The method according to claim 7 or 8, wherein the parameter(s) comprised in the first power-saving mode and the parameter(s) comprised in the second power-saving mode have at least one parameter that is not common.

10. The method according to claim 1, wherein the target channel is used to indicate whether the UE monitors the PDCCH associated with the target channel, or the target signal is used to indicate whether the UE monitors the PDCCH associated with the target signal; and

after the determining first information based on the first characteristic, the method further comprises:

10 monitoring the PDCCH based on the first information.

11. The method according to claim 1, wherein the target channel or the target signal is used to indicate the first power-saving mode of the UE, or is used to indicate whether the UE monitors the PDCCH associated with the target signal; and

15 after the determining first information based on the first characteristic, the method further comprises:

transmitting or receiving data by using the second power-saving mode.

12. User equipment UE, comprising: a detecting unit and a determining unit, wherein

20 the detecting unit is configured to monitor a target channel or a target signal to acquire a first characteristic, wherein the first characteristic is a characteristic of the target channel or the target signal; and

the determining unit is configured to determine first information based on the first characteristic obtained by the detecting unit, wherein

25 in a case that the target channel or the target signal is used to indicate a first power-saving mode of the UE, the first information is a second power-saving mode of the UE; or in a case that the target channel is used to indicate whether the UE monitors a physical downlink control channel PDCCH associated with the target channel, or the target signal is used to indicate whether the UE monitors a PDCCH associated with the target signal, the first information is a second characteristic of the PDCCH or the second
30 power-saving mode of the UE;

wherein the determining unit is specifically configured to determine the first information based on the first characteristic and a first correspondence, wherein

the first correspondence is a correspondence between the first characteristic and the first information;

5 wherein the first characteristic of the target channel comprises at least one of the following: a downlink control information DCI format of the target channel, or a radio network temporary identifier RNTI of the target channel; or,

10 wherein the first characteristic of the target signal comprises at least one of the following: a root sequence of a target sequence, a cyclic shift value of the target sequence, a generator polynomial of the target sequence, an initialization mode of the target sequence, or a cover code of the target sequence, wherein the target sequence is a sequence of the target signal.

13. The UE according to claim 12, wherein the first correspondence is configured by a network device or predefined.

15 14. The UE according to claim 12 or 13, wherein the first characteristic of the target channel further comprises at least one of the following: a bandwidth part BWP in which the target channel is located, a search space SS in which the target channel is located, a control resource set in which the target channel is located.

20 15. User equipment UE, comprising a processor, a memory, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the information determining method according to any one of claims 1 to 11 are implemented.

25 16. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, the steps of the information determining method according to any one of claims 1 to 11 are implemented.