

CLAIMS

What is claimed is:

1. A cell reselection method, applied to a terminal and comprising:
 - obtaining reselection information related to cell reselection, wherein the reselection information comprises a per-cell reselection parameter of a neighboring cell; and
 - performing a cell reselection procedure based on the per-cell reselection parameter and a reselection condition for reselecting to the neighboring cell;wherein the per-cell reselection parameter comprises at least one of the following parameters:
 - a minimum received signal level parameter;
 - a minimum received signal level offset parameter;
 - a minimum signal quality parameter;
 - a minimum signal quality offset parameter;
 - a power compensation parameter;
 - a measurement offset parameter;
 - a first target offset, wherein the first target offset is a sum of differences between per-cell parameter values and per-frequency parameter values of at least one of a minimum received signal level parameter, a minimum received signal level offset parameter, a power compensation parameter, or a measurement offset parameter;
 - a second target offset, wherein the second target offset is a sum of differences between per-cell parameter values and per-frequency parameter values of at least one of a minimum signal quality parameter, a minimum signal quality offset parameter, or a measurement offset parameter;wherein the minimum received signal level parameter comprises a per-frequency minimum received signal level value corresponding to the neighboring cell and a first offset value, wherein the first offset value is a difference between a target minimum received signal level value and the per-frequency minimum received signal level value;
- the minimum received signal level offset parameter comprises a per-frequency minimum received signal level offset value corresponding to the neighboring cell and a second offset value, wherein the second offset value is a difference between the target minimum received signal level offset value and the per-frequency minimum received signal level offset value;

the minimum signal quality parameter comprises a per-frequency minimum signal quality value corresponding to the neighboring cell and a third offset value, wherein the third offset value is a difference between the target minimum signal quality value and the per-frequency minimum signal quality value;

the minimum signal quality offset parameter comprises a per-frequency minimum signal quality offset value corresponding to the neighboring cell and a fourth offset value, wherein the fourth offset value is a difference between the target minimum signal quality offset value and the per-frequency minimum signal quality offset value;

the measurement offset parameter comprises a per-frequency measurement offset value corresponding to the neighboring cell and a fifth offset value, wherein the fifth offset value is an offset between the target measurement offset value and the per-frequency measurement offset value;

the power compensation parameter is determined based on a maximum power parameter and a power class parameter;

the maximum power parameter comprises a per-frequency maximum power value corresponding to the neighboring cell and a sixth offset value, wherein the sixth offset value is a difference between the target maximum power value and the per-frequency maximum power value.

2. The cell reselection method according to claim 1, wherein the reselection information is configured by a network device in a source cell in which the terminal is located, or the reselection information is obtained from a historically received message.

3. The cell reselection method according to claim 1 or 2, wherein the per-cell reselection parameter further comprises at least one of the following parameters:

a first intermediate quantity related to a received signal level value, wherein the first intermediate quantity is related to a per-cell parameter value of at least one of a minimum received signal level parameter, a minimum received signal level offset parameter, a power compensation parameter, and a measurement offset parameter; and

a second intermediate quantity related to a signal quality value, wherein the second intermediate quantity is related to a per-cell parameter value of at least one of a minimum signal quality parameter, a minimum signal quality offset parameter, and a measurement offset parameter.

4. The cell reselection method according to claim 1, wherein the measurement offset parameter further comprises a connection failure offset parameter and/or a cell temporary offset parameter.

5. The cell reselection method according to claim 3, wherein the step of performing a cell reselection procedure based on the reselection parameter and a reselection condition for reselecting to the neighboring cell comprises:

calculating a cell-selection received signal level value of the neighboring cell based on a measured received signal level value and at least one of the minimum received signal level parameter, the minimum received signal level offset parameter, the power compensation parameter, and the measurement offset parameter in the selection parameter;

calculating a cell-selection signal quality value of the neighboring cell based on a measured received signal quality value and at least one of the minimum signal quality parameter, the minimum signal quality offset parameter, and the measurement offset parameter in the selection parameter; and

performing the cell reselection procedure based on the cell-selection received signal level value, the cell-selection signal quality value, and the reselection condition for reselecting to the neighboring cell;

or

the step of performing a cell reselection procedure based on the reselection parameter and a reselection condition for reselecting to the neighboring cell comprises:

calculating a cell-selection received signal level value of the neighboring cell based on a measured received signal level value, a first target parameter value, and the first target offset, wherein the first target parameter value is the per-frequency parameter value of the at least one of the minimum received signal level parameter, the minimum received signal level offset parameter, the power compensation parameter, and the measurement offset parameter;

calculating a cell-selection signal quality value of the neighboring cell based on a measured received signal quality value, a second target parameter value, and the second target offset, wherein the second target parameter value is the per-frequency parameter value of the at least one of the minimum signal quality parameter, the minimum signal quality offset parameter, and the

measurement offset parameter; and

performing the cell reselection procedure based on the cell-selection received signal level value, the cell-selection signal quality value, and the reselection condition for reselecting to the neighboring cell;

or

the step of performing a cell reselection procedure based on the reselection parameter and a reselection condition for reselecting to the neighboring cell comprises:

calculating a cell-selection received signal level value of the neighboring cell based on a measured received signal level value and the first intermediate quantity;

calculating a cell-selection signal quality value of the neighboring cell based on a measured received signal quality value and the second intermediate quantity; and

performing the cell reselection procedure based on the cell-selection received signal level value, the cell-selection signal quality value, and the reselection condition for reselecting to the neighboring cell.

6. The cell reselection method according to claim 5, wherein the step of performing the cell reselection procedure based on the cell-selection received signal level value, the cell-selection signal quality value, and the reselection condition for reselecting to the neighboring cell comprises:

in a case in which neighboring cells have a same priority as the source cell or neighboring cells are on a same frequency as the source cell, if the cell-selection received signal level values and the cell-selection signal quality values are all greater than 0, ranking the source cell and the neighboring cells; and

if the source cell does not provide a rank threshold, reselecting from the source cell to a best ranked cell in the neighboring cells; or

if the source cell provides a rank threshold, reselecting from the source cell to one of first cells that has a largest quantity of beams whose quality is higher than a threshold, wherein the first cell is a cell with a difference between a rank thereof and a rank of a best ranked cell in the neighboring cells being less than or equal to the rank threshold.

7. The cell reselection method according to claim 5, wherein the step of performing the cell reselection procedure based on the cell-selection received signal level value, the cell-selection signal quality value, and the reselection condition for reselecting to the neighboring cell comprises:

in a case in which a priority of the neighboring cell is lower than a priority of the source cell, when the source cell provides $\text{Thresh}_{\text{Serving,LowQ}}$ corresponding to Squal of the source cell, if Squal of the source cell is less than $\text{Thresh}_{\text{Serving,LowQ}}$, and Squal of the neighboring cell is greater than $\text{Thresh}_{\text{X,LowQ}}$ or Srxlev of the neighboring cell is greater than $\text{Thresh}_{\text{X,LowP}}$ in a reselection time period $\text{Treselection}_{\text{RAT}}$, reselecting from the source cell to the neighboring cell; or

when the source cell does not provide $\text{Thresh}_{\text{Serving,LowQ}}$ corresponding to Squal of the source cell, if Srxlev of the source cell is less than $\text{Thresh}_{\text{Serving,LowP}}$, and Srxlev of the neighboring cell is greater than $\text{Thresh}_{\text{X,LowP}}$ in a reselection time period $\text{Treselection}_{\text{RAT}}$, reselecting from the source cell to the neighboring cell; wherein

Squal is a cell-selection signal quality value, Srxlev is a cell-selection received signal level value, $\text{Thresh}_{\text{Serving,LowQ}}$ is a Squal threshold of the source cell, $\text{Thresh}_{\text{Serving,LowP}}$ is an Srxlev threshold of the source cell, $\text{Thresh}_{\text{X,LowQ}}$ is a Squal threshold of the neighboring cell, and $\text{Thresh}_{\text{X,LowP}}$ is an Srxlev threshold of the neighboring cell.

8. The cell reselection method according to claim 5, wherein the step of performing the cell reselection procedure based on the cell-selection received signal level value, the cell-selection signal quality value, and the reselection condition for reselecting to the neighboring cell comprises:

in a case in which a priority of the neighboring cell is higher than a priority of the source cell, when the source cell provides $\text{Thresh}_{\text{Serving,LowQ}}$ corresponding to Squal of the source cell, if Squal of the neighboring cell is greater than $\text{Thresh}_{\text{X,HighQ}}$ in a reselection time period $\text{Treselection}_{\text{RAT}}$, reselecting from the source cell to the neighboring cell; or

when the source cell does not provide $\text{Thresh}_{\text{Serving,LowQ}}$ corresponding to Squal of the source cell, if Srxlev of the neighboring cell is greater than $\text{Thresh}_{\text{X,HighP}}$ in a reselection time period $\text{Treselection}_{\text{RAT}}$, reselecting from the source cell to the neighboring cell; wherein

Squal is a cell-selection signal quality value, Srxlev is a cell-selection received signal level value, $\text{Thresh}_{\text{Serving,LowQ}}$ is a Squal threshold of the source cell, $\text{Thresh}_{\text{X,HighQ}}$ is a Squal threshold of the neighboring cell, and $\text{Thresh}_{\text{X,HighP}}$ is an Srxlev threshold of the neighboring cell.

9. The cell reselection method according to claim 1, wherein the reselection information further comprises a physical cell identifier PCI of the neighboring cell, and the PCI corresponds to the per-cell reselection parameter;

and/or

the reselection information further comprises priority information used to indicate a priority of the neighboring cell.

10. A terminal, comprising:

an obtaining module, configured to obtain reselection information related to cell reselection, wherein the reselection information comprises a per-cell reselection parameter of a neighboring cell; and

a reselection module, configured to perform a cell reselection procedure based on the per-cell reselection parameter and a reselection condition for reselecting to the neighboring cell;

wherein the per-cell reselection parameter comprises at least one of the following parameters:

a minimum received signal level parameter;

a minimum received signal level offset parameter;

a minimum signal quality parameter;

a minimum signal quality offset parameter;

a power compensation parameter;

a measurement offset parameter;

a first target offset, wherein the first target offset is a sum of differences between per-cell parameter values and per-frequency parameter values of at least one of a minimum received signal level parameter, a minimum received signal level offset parameter, a power compensation parameter, or a measurement offset parameter;

a second target offset, wherein the second target offset is a sum of differences between per-cell parameter values and per-frequency parameter values of at least one of a minimum signal quality parameter, a minimum signal quality offset parameter, or a measurement offset parameter;

wherein the minimum received signal level parameter comprises a per-frequency minimum received signal level value corresponding to the neighboring cell and a first offset value, wherein the first offset value is a difference between a target minimum received signal level value and the per-frequency minimum received signal level value;

the minimum received signal level offset parameter comprises a per-frequency minimum received signal level offset value corresponding to the neighboring cell and a second offset value, wherein the second offset value is a difference between the target minimum received signal level

offset value and the per-frequency minimum received signal level offset value;

the minimum signal quality parameter comprises a per-frequency minimum signal quality value corresponding to the neighboring cell and a third offset value, wherein the third offset value is a difference between the target minimum signal quality value and the per-frequency minimum signal quality value;

the minimum signal quality offset parameter comprises a per-frequency minimum signal quality offset value corresponding to the neighboring cell and a fourth offset value, wherein the fourth offset value is a difference between the target minimum signal quality offset value and the per-frequency minimum signal quality offset value;

the measurement offset parameter comprises a per-frequency measurement offset value corresponding to the neighboring cell and a fifth offset value, wherein the fifth offset value is an offset between the target measurement offset value and the per-frequency measurement offset value;

the power compensation parameter is determined based on a maximum power parameter and a power class parameter;

the maximum power parameter comprises a per-frequency maximum power value corresponding to the neighboring cell and a sixth offset value, wherein the sixth offset value is a difference between the target maximum power value and the per-frequency maximum power value..

11. A cell reselection method, applied to a network device and comprising:

sending reselection information related to cell reselection, wherein the reselection information comprises a per-cell reselection parameter of a neighboring cell;

wherein the per-cell reselection parameter comprises at least one of the following parameters:

- a minimum received signal level parameter;
- a minimum received signal level offset parameter;
- a minimum signal quality parameter;
- a minimum signal quality offset parameter;
- a power compensation parameter;
- a measurement offset parameter;

a first target offset, wherein the first target offset is a sum of differences between per-cell parameter values and per-frequency parameter values of at least one of a minimum received signal level parameter, a minimum received signal level offset parameter, a power compensation parameter, or a measurement offset parameter;

a second target offset, wherein the second target offset is a sum of differences between per-cell parameter values and per-frequency parameter values of at least one of a minimum signal quality parameter, a minimum signal quality offset parameter, or a measurement offset parameter;

wherein the minimum received signal level parameter comprises a per-frequency minimum received signal level value corresponding to the neighboring cell and a first offset value, wherein the first offset value is a difference between a target minimum received signal level value and the per-frequency minimum received signal level value;

the minimum received signal level offset parameter comprises a per-frequency minimum received signal level offset value corresponding to the neighboring cell and a second offset value, wherein the second offset value is a difference between the target minimum received signal level offset value and the per-frequency minimum received signal level offset value;

the minimum signal quality parameter comprises a per-frequency minimum signal quality value corresponding to the neighboring cell and a third offset value, wherein the third offset value is a difference between the target minimum signal quality value and the per-frequency minimum signal quality value;

the minimum signal quality offset parameter comprises a per-frequency minimum signal quality offset value corresponding to the neighboring cell and a fourth offset value, wherein the fourth offset value is a difference between the target minimum signal quality offset value and the per-frequency minimum signal quality offset value;

the measurement offset parameter comprises a per-frequency measurement offset value corresponding to the neighboring cell and a fifth offset value, wherein the fifth offset value is an offset between the target measurement offset value and the per-frequency measurement offset value;

the power compensation parameter is determined based on a maximum power parameter and a power class parameter;

the maximum power parameter comprises a per-frequency maximum power value

corresponding to the neighboring cell and a sixth offset value, wherein the sixth offset value is a difference between the target maximum power value and the per-frequency maximum power value..

12. The cell reselection method according to claim 11, wherein the per-cell reselection parameter further comprises at least one of the following parameters:

a first intermediate quantity related to a received signal level value, wherein the first intermediate quantity is related to a per-cell parameter value of at least one of a minimum received signal level parameter, a minimum received signal level offset parameter, a power compensation parameter, and a measurement offset parameter; and

a second intermediate quantity related to a signal quality value, wherein the second intermediate quantity is related to a per-cell parameter value of at least one of a minimum signal quality parameter, a minimum signal quality offset parameter, and a measurement offset parameter.

13. A network device, comprising:

a sending module, configured to send reselection information related to cell reselection, wherein the reselection information comprises a per-cell reselection parameter of a neighboring cell;

wherein the per-cell reselection parameter comprises at least one of the following parameters:

a minimum received signal level parameter;

a minimum received signal level offset parameter;

a minimum signal quality parameter;

a minimum signal quality offset parameter;

a power compensation parameter;

a measurement offset parameter;

a first target offset, wherein the first target offset is a sum of differences between per-cell parameter values and per-frequency parameter values of at least one of a minimum received signal level parameter, a minimum received signal level offset parameter, a power compensation parameter, or a measurement offset parameter;

a second target offset, wherein the second target offset is a sum of differences between per-

cell parameter values and per-frequency parameter values of at least one of a minimum signal quality parameter, a minimum signal quality offset parameter, or a measurement offset parameter;

wherein the minimum received signal level parameter comprises a per-frequency minimum received signal level value corresponding to the neighboring cell and a first offset value, wherein the first offset value is a difference between a target minimum received signal level value and the per-frequency minimum received signal level value;

the minimum received signal level offset parameter comprises a per-frequency minimum received signal level offset value corresponding to the neighboring cell and a second offset value, wherein the second offset value is a difference between the target minimum received signal level offset value and the per-frequency minimum received signal level offset value;

the minimum signal quality parameter comprises a per-frequency minimum signal quality value corresponding to the neighboring cell and a third offset value, wherein the third offset value is a difference between the target minimum signal quality value and the per-frequency minimum signal quality value;

the minimum signal quality offset parameter comprises a per-frequency minimum signal quality offset value corresponding to the neighboring cell and a fourth offset value, wherein the fourth offset value is a difference between the target minimum signal quality offset value and the per-frequency minimum signal quality offset value;

the measurement offset parameter comprises a per-frequency measurement offset value corresponding to the neighboring cell and a fifth offset value, wherein the fifth offset value is an offset between the target measurement offset value and the per-frequency measurement offset value;

the power compensation parameter is determined based on a maximum power parameter and a power class parameter;

the maximum power parameter comprises a per-frequency maximum power value corresponding to the neighboring cell and a sixth offset value, wherein the sixth offset value is a difference between the target maximum power value and the per-frequency maximum power value..