What is claimed is:

1. A method for receiving system information, being applied to a terminal and comprising:

sending, in a random access process, a preamble to a base station;

receiving a random access response message sent by the base station after the base station detects the preamble, wherein the random access response message is used to instruct to send a random access message III, the random access message III comprising at least an identifier of the terminal;

sending the random access message III carrying a system information request to the base station, wherein the system information request is used to request for system information;

receiving a random access message IV carrying the system information and sent by the base station, wherein the random access message IV is generated by the base station upon determining that the terminal corresponding to the identifier in the random access message III is the terminal sending the preamble, and the random access message IV comprises at least a second identifier of a second terminal being able to access the base station currently; and

reading the second identifier from the random access message IV, when the second identifier in the random access message IV is the same as the identifier in the random access message III sent by the terminal, determining that the base station is accessible currently and reading the system information from the random access message IV, and

when the second identifier in the random access message IV is different from the identifier in the random access message III sent by the terminal, determining that the

base station is not accessible currently and repeating the random access process;

wherein the method, before the random access process, further comprises

receiving first system information broadcasted by the base station using a beamforming technology, the first system information being used by the base station and the terminal in the random access process; and

wherein transmission between the base station and the terminal is performed by using a high frequency band, and the first system information is different from second system information.

2. The method according to claim 1, wherein the sending the random access message III carrying the system information request to the base station comprises:

when the random access message III comprises n information indicator bits, and each information indicator bit corresponds to at least one type of system information or at least one type of information block, determining an information indicator bit corresponding to the system information from the n information indicator bits, and setting a numerical value of the information indicator bit to a preset numerical value, wherein the preset numerical value is used to instruct the base station to send the system information, and n is a positive integer; and

sending the random access message III to the base station.

3. A method for transmitting system information, implemented by a base station, comprising:

listening to, in a random access process, a preamble sent by each terminal;

when a preamble sent by the terminal is detected, generating a random access

response message and sending the random access response message to the terminal, wherein the random access response message is used to instruct to send a random access message III, the random access message III comprising at least an identifier of the terminal;

receiving the random access message III carrying a system information request and sent by a terminal, wherein the system information request is used to request for system information; and

generating, upon determining that the terminal corresponding to the identifier in the random access message III is the terminal sending the preamble, a random access message IV carrying the system information and sending the random access message IV to the terminal, wherein the random access message IV is used for the terminal to read the system information,

wherein the method, before the random access process, further comprises:

broadcasting first system information by using a beamforming technology, the first system information being used by the base station and the terminal in the random access process;

wherein transmission between the base station and the terminal is performed by using a high frequency band, and the first system information is different from second system information.

4. The method according to claim 3, further comprising:

when the random access message III comprises n information indicator bits, and each information indicator bit corresponds to at least one type of system information or at least one type of information block, reading a numerical value of each information

indicator bit in the random access message III, wherein n is a positive integer;

when an information indicator bit whose numerical value is a preset numerical value exits, obtaining system information corresponding to the information indicator bit; and

generating the random access message IV carrying the system information.

5. An apparatus for transmitting system information, being applied in a terminal and comprising:

a second sending module configured to send, in a random access process, a preamble to a base station;

a second receiving module configured to receive a random access response message sent by the base station after the base station detects the preamble, wherein the random access response message is used to instruct to send a random access message III, the random access message III comprising at least an identifier of the terminal;

a first sending module configured to send, in the random access process, the random access message III carrying a system information request to the base station, wherein the system information request is used to request for system information;

a first receiving module configured to receive a random access message IV carrying the system information and sent by the base station, wherein the random access message IV is generated by the base station upon determining that the terminal corresponding to the identifier in the random access message III is the terminal sending the preamble, and the random access message IV comprises at least a second identifier of a second terminal being able to access the base station currently; and

an information reading module configured to read the second identifier from the

random access message IV, when the second identifier in the random access message IV is the same as the identifier in the random access message III sent by the terminal, determine that the base station is accessible currently and read the system information from the random access message IV obtained by the first receiving module, and when the second identifier in the random access message IV is different from the identifier in the random access message III sent by the terminal, determine that the base station is not accessible currently and repeat the random access process;

wherein the first receiving module is further configured to:

receive first system information broadcasted by the base station using a beamforming technology, the first system information being used by the base station and the terminal in the random access process;

wherein transmission between the base station and the terminal is performed by using a high frequency band, and the first system information is different from second system information.

6. The apparatus according to claim 5, wherein the first sending module is further configured to:

when the random access message III comprises n information indicator bits, and each information indicator bit corresponds to at least one type of system information or at least one type of information block, determine an information indicator bit corresponding to the system information from the n information indicator bits, and set a numerical value of the information indicator bit to a preset numerical value, wherein the preset numerical value is used to instruct the base station to send the system information, and n is a positive integer; and

send the random access message III to the base station.

7. An apparatus for transmitting system information, being applied to a base station and comprising:

a listening module configured to listen to, in a random access process, a preamble sent by each terminal;

a second sending module configured to, when a preamble sent by the terminal is detected, generate a random access response message and send the random access response message to the terminal, wherein the random access response message is used to instruct to send a random access message III, the random access message III comprising at least an identifier of the terminal;

a message receiving module configured to receive, in the random access process, the random access message III carrying a system information request and sent by a terminal, wherein the system information request is used to request for system information; and

a first sending module configured to generate, upon determining that the terminal corresponding to the identifier in the random access message III is the terminal sending the preamble, a random access message IV carrying the system information and send the random access message IV to the terminal, wherein the random access message IV is used for the terminal to read the system information,

wherein the first sending module is further configured to:

broadcast first system information by using a beamforming technology, the first system information being used by the base station and the terminal in the random access process; and

wherein transmission between the base station and the terminal is performed by using a high frequency band, and the first system information is different from second system information.

8. The apparatus according to claim 7, wherein the apparatus further comprises:

a numerical value reading module configured to, when the random access message III comprises n information indicator bits, and each information indicator bit corresponds to at least one type of system information or at least one type of information block, read a numerical value of each information indicator bit in the random access message III, wherein n is a positive integer;

an information obtaining module configured to, when an information indicator bit whose numerical value is a preset numerical value exits, obtain system information corresponding to the information indicator bit; and

a message generation module configured to generate the random access message IV carrying the system information.

9. An apparatus for transmitting system information, being applied to a terminal and comprising:

a processor;

a memory configured to store instructions executable by the processor;

wherein the processor is configured to:

send, in a random access process, a preamble to the base station;

receive a random access response message sent by the base station after the base station detects the preamble, wherein the random access response message is used to

instruct to send a random access message III, the random access message III comprising at least an identifier of the terminal;

send the random access message III carrying a system information request to the base station, wherein the system information request is used to request for system information;

receive a random access message IV carrying the system information and sent by the base station, wherein the random access message IV is generated by the base station upon determining that the terminal corresponding to the identifier in the random access message III is the terminal sending the preamble, and the random access message IV comprises at least a second identifier of a second terminal being able to access the base station currently; and

read the second identifier from the random access message IV, when the second identifier in the random access message IV is the same as the identifier in the random access message III sent by the terminal, determine that the base station is accessible currently and read the system information from the random access message IV, and when the second identifier in the random access message IV is different from the identifier in the random access message III sent by the terminal, determine that the base station is not accessible currently and repeat the random access process;

wherein the processor is further configured to:

receive, before the random access process, first system information broadcasted by a base station using a beamforming technology, the first system information being used by the base station and a terminal in a random access process; and

wherein transmission between the base station and the terminal is performed by

using a high frequency band, and the first system information is different from second system information.

10. An apparatus for transmitting system information, being applied to a base station and comprising:

a processor;

a memory configured to store instructions executable by the processor;

wherein the processor is configured to:

listen to, in a random access process, a preamble sent by each terminal;

when a preamble sent by the terminal is detected, generate a random access response message and send the random access response message to the terminal, wherein the random access response message is used to instruct to send a random access message III, the random access message III comprising at least an identifier of the terminal;

receive the random access message III carrying a system information request and sent by a terminal, wherein the system information request is used to request for system information; and

generate, upon determining that the terminal corresponding to the identifier in the random access message III is the terminal sending the preamble, a random access message IV carrying the system information and send the random access message IV to the terminal, wherein the random access message IV is used for the terminal to read the system information,

wherein the processor is further configured to:

broadcast, before the random access process, first system information by using a beamforming technology, the first system information being used by the base station and the terminal in a random access process;

wherein transmission between the base station and the terminal is performed by using a high frequency band, and the first system information is different from second system information.

11. A program recorded on a computer-readable recording medium being performed by a processor to implement the method according to any one of claims 1 to 4.

12. A computer-readable recording medium on which the program according to claim 11 is recorded.