

CLAIMS

1. A method for reporting an antenna switching capability of a terminal, wherein the method is performed by the terminal, and the method comprises:

determining an antenna switching configuration combination supported by capability of the terminal according to a target classification principle; and

sending terminal capability reporting information to a network device, the terminal capability reporting information being configured to represent the antenna switching configuration combination supported by the capability of the terminal,

wherein the target classification principle further comprises a classification principle of a number of antennas or a classification principle of a number of antenna ports,

wherein the determining the antenna switching configuration combination supported by the capability of the terminal according to the target classification principle comprises:

determining that the capability of the terminal supports the antenna switching configuration combination at least comprising 6 or 8 receiving antennas according to the target classification principle,

wherein in a case that the number of antennas is classified as 6, the antenna switching configuration combination only supported by the capability of the terminal at least comprises one or more of the following A)-D) items:

A) two transmitting channels and six receiving channels;

B) four transmitting channels and six receiving channels;

C) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels;

D) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, four transmitting channels and six receiving channels,

wherein the channel corresponds to the antenna or the antenna port, and

wherein in a case that the number of antennas is classified as 8, the antenna switching configuration combination only supported by the capability of the terminal at least comprises one or more of the following A)-F) items:

A) one transmitting channel and eight receiving channels;

B) one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels;

C) one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

D) one transmitting channel and six receiving channels, one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

E) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

F) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels.

2. The method according to claim 1, wherein in the case that the number of antennas is classified as 6, the antenna switching configuration combination supported by the capability of the terminal at least further comprises one or more of the following A)-E) items:

A) one transmitting channel and one receiving channel, one transmitting channel and two receiving channels, one transmitting channel and four receiving channels, one transmitting channel and six receiving channels;

B) one transmitting channel and one receiving channel, one transmitting channel and two receiving channels, two transmitting channels and two receiving channels, two transmitting channels and four receiving channels, two transmitting channels and six receiving channels;

C) one transmitting channel and one receiving channel, one transmitting channel and two receiving channels, two transmitting channels and two receiving channels, one transmitting channel and four receiving channels, one transmitting channel and six receiving channels, two transmitting channels and four receiving channels, two transmitting channels and six receiving channels;

D) one transmitting channel and one receiving channel, two transmitting channels and two receiving channels, four transmitting channels and four receiving channels, four transmitting channels and six receiving channels;

E) one transmitting channel and one receiving channel, one transmitting channel and two receiving channels, two transmitting channels and two receiving channels, one transmitting channel and four receiving channels, one transmitting channel and six receiving channels, two

transmitting channels and four receiving channels, two transmitting channels and six receiving channels, four transmitting channels and six receiving channels.

3. The method according to claim 1, wherein in the case that the number of antennas is classified as 8, the antenna switching configuration combination supported by the capability of the terminal at least further comprises one or more of the following A)-E) items:

A) one transmitting channel and one receiving channel, one transmitting channel and two receiving channels, one transmitting channel and four receiving channels, one transmitting channel and eight receiving channels;

B) one transmitting channel and one receiving channel, one transmitting channel and two receiving channels, two transmitting channels and two receiving channels, two transmitting channels and four receiving channels, two transmitting channels and eight receiving channels;

C) one transmitting channel and one receiving channel, one transmitting channel and two receiving channels, two transmitting channels and two receiving channels, two transmitting channels and four receiving channels, one transmitting channel and four receiving channels, one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, two transmitting channels and eight receiving channels;

D) one transmitting channel and one receiving channel, two transmitting channels and two receiving channels, four transmitting channels and four receiving channels, four transmitting channels and eight receiving channels;

E) one transmitting channel and one receiving channel, one transmitting channel and two receiving channels, two transmitting channels and two receiving channels, one transmitting channel and four receiving channels, one transmitting channel and six receiving channels, one transmitting channel and eight receiving channels, two transmitting channels and four receiving channels, two transmitting channels and six receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and six receiving channels, four transmitting channels and eight receiving channels.

4. A method for reporting an antenna switching capability of a terminal, wherein the method is performed by a network device, and the method comprises:

receiving terminal capability reporting information sent by the terminal, the terminal capability reporting information being configured to represent an antenna switching configuration combination supported by capability of the terminal,

wherein the antenna switching configuration combination supported by the capability of the

terminal (800) is determined according to a target classification principle,

wherein the target classification principle further comprises a classification principle of a number of antennas or a classification principle of a number of antenna ports,

wherein the antenna switching configuration combination supported by the capability of the terminal (800) at least comprises 6 or 8 receiving antennas,

wherein in a case that the number of antennas is classified as 6, the antenna switching configuration combination only supported by the capability of the terminal (800) at least comprises one or more of the following A)-D) items:

A) two transmitting channels and six receiving channels;

B) four transmitting channels and six receiving channels;

C) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels;

D) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, four transmitting channels and six receiving channels,

wherein the channel corresponds to the antenna or the antenna port, and

wherein in a case that the number of antennas is classified as 8, the antenna switching configuration combination only supported by the capability of the terminal (800) at least comprises one or more of the following A)-F) items:

A) one transmitting channel and eight receiving channels;

B) one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels;

C) one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

D) one transmitting channel and six receiving channels, one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

E) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

F) one transmitting channel and six receiving channels, two transmitting channels and six

receiving channels, one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels.

5. A terminal, comprising:

a processing unit configured to determine an antenna switching configuration combination supported by capability of the terminal according to a target classification principle; and

a transceiver unit configured to send terminal capability reporting information to a network device, the terminal capability reporting information being configured to represent the antenna switching configuration combination supported by the capability of the terminal,

wherein the target classification principle further comprises a classification principle of a number of antennas or a classification principle of a number of antenna ports,

wherein the processing unit (610) is further configured to:

determine that the capability of the terminal (800) supports the antenna switching configuration combination at least comprising 6 or 8 receiving antennas according to the target classification principle,

wherein in a case that the number of antennas is classified as 6, the antenna switching configuration combination only supported by the capability of the terminal (800) at least comprises one or more of the following A)-D) items:

A) two transmitting channels and six receiving channels;

B) four transmitting channels and six receiving channels;

C) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels;

D) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, four transmitting channels and six receiving channels,

wherein the channel corresponds to the antenna or the antenna port, and

wherein in a case that the number of antennas is classified as 8, the antenna switching configuration combination only supported by the capability of the terminal (800) at least comprises one or more of the following A)-F) items:

A) one transmitting channel and eight receiving channels;

B) one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels;

C) one transmitting channel and eight receiving channels, two transmitting channels and

eight receiving channels, four transmitting channels and eight receiving channels;

D) one transmitting channel and six receiving channels, one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

E) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

F) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels.

6. A network device, comprising:

a transceiver unit configured to receive terminal capability reporting information sent by a terminal, the terminal capability reporting information being configured to represent an antenna switching configuration combination supported by the capability of the terminal,

wherein the antenna switching configuration combination supported by the capability of the terminal (800) is determined according to a target classification principle,

wherein the target classification principle further comprises a classification principle of a number of antennas or a classification principle of a number of antenna ports,

wherein the antenna switching configuration combination supported by the capability of the terminal (800) at least comprises 6 or 8 receiving antennas,

wherein in a case that the number of antennas is classified as 6, the antenna switching configuration combination only supported by the capability of the terminal (800) at least comprises one or more of the following A)-D) items:

A) two transmitting channels and six receiving channels;

B) four transmitting channels and six receiving channels;

C) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels;

D) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, four transmitting channels and six receiving channels,

wherein the channel corresponds to the antenna or the antenna port, and

wherein in a case that the number of antennas is classified as 8, the antenna switching

configuration combination only supported by the capability of the terminal (800) at least comprises one or more of the following A)-F) items:

A) one transmitting channel and eight receiving channels;

B) one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels;

C) one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

D) one transmitting channel and six receiving channels, one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

E) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels;

F) one transmitting channel and six receiving channels, two transmitting channels and six receiving channels, one transmitting channel and eight receiving channels, two transmitting channels and eight receiving channels, four transmitting channels and eight receiving channels.

7. A terminal, comprising:

a processor; and

a memory storing computer programs executable by the processor,

wherein the processor is configured to execute the computer programs stored in the memory to execute a method according to any one of claims 1 to 3.

8. A network device, comprising:

a processor; and

a memory storing computer programs executable by the processor,

wherein the processor is configured to execute the computer programs stored in the memory to execute a method according to claim 4.

9. A terminal, comprising: a processor and an interface circuit,

wherein the interface circuit is configured to receive a code instruction and transmit the code instruction to the processor; and

the processor is configured to run the code instruction to execute a method according to any one of claims 1 to 3.

10. A network device, comprising: a processor and an interface circuit,
wherein the interface circuit is configured to receive a code instruction and transmit the code instruction to the processor; and
the processor is configured to run the code instruction to execute a method according to claim 4.
11. A non-transitory computer-readable storage medium storing instructions that, when executed by a processor, cause the processor to perform a method according to any one of claims 1 to 3.
12. A non-transitory computer-readable storage medium storing instructions that, when executed by a processor, cause the processor to perform a method according to claim 4.