

CLAIMS

1. A control channel transmission method, applied at a network device side, comprising:

sending, by at least two Transmission and Reception Points (TRPs), at least two candidate control channels, wherein there is a first corresponding link between information related to a first candidate control channel of the at least two candidate control channels and information related to other candidate control channels of the at least two candidate control channels except for the first candidate control channel,

wherein the at least two candidate control channels are candidate Physical Downlink Control Channels (PDCCHs),

wherein the at least two candidate control channels are in different Search Space sets, and

the method is characterized in that the first corresponding link comprises a link between Search Space set indexes of the other candidate control channels and a Search Space set index of the first candidate control channel.

2. The method of claim 1, wherein contents of the at least two candidate control channels are the same; or

the at least two candidate control channels constitute a same Downlink Control Information (DCI).

3. The method of claim 1, wherein the first corresponding link further comprises a link between indexes of the other candidate control channels and an index of the first candidate control channel.

4. The method of claim 1, wherein the first corresponding link further comprises a link between Control Channel Element (CCE) indexes of the other candidate control channels and a CCE index of the first candidate control channel.

5. The method of claim 1, wherein the Search Space set indexes of the other candidate control channels are determined by using the Search Space set index of the first candidate control channel and a second parameter, and the second parameter represents an offset relative to the

Search Space set index of the first candidate control channel.

6. The method of claim 3, wherein the indexes of the other candidate control channels are determined by using the index of the first candidate control channel and a third parameter, and the third parameter represents an offset relative to the index of the first candidate control channel.

7. The method of claim 4, wherein the CCE indexes of the other candidate control channels are determined by using the CCE index of the first candidate control channel and a fourth parameter, and the fourth parameter represents an offset relative to the CCE index of the first candidate control channel.

8. The method of claim 1, further comprising:

sending first information to a User Equipment (UE), the first information being configured to indicate a respective Transmission Configuration Indicator (TCI) state of each of the at least two candidate control channels.

9. A control channel transmission method, applied at a User Equipment (UE) side, comprising:

receiving at least two candidate control channels from at least two Transmission and Reception Points (TRPs),

wherein there is a first corresponding link between information related to a first candidate control channel of the at least two candidate control channels and information related to other candidate control channels of the at least two candidate control channels except for the first candidate control channel,

wherein the at least two candidate control channels are candidate Physical Downlink Control Channels (PDCCHs),

wherein the at least two candidate control channels are in different Search Space sets, and

the method is characterized in that the first corresponding link comprises a link between Search Space set indexes of the other candidate control channels and a Search Space set index of the first candidate control channel.

10. The method of claim 9, wherein contents of the at least two candidate control channels are the same; or

the at least two candidate control channels constitute a same Downlink Control Information (DCI).

11. The method of claim 9, wherein the first corresponding link further comprises a link between indexes of the other candidate control channels and an index of the first candidate control channel.

12. The method of claim 9, wherein the first corresponding link further comprises a link between Control Channel Element (CCE) indexes of the other candidate control channels and a CCE index of the first candidate control channel.

13. The method of claim 9, wherein the Search Space set indexes of the other candidate control channels are determined by using the Search Space set index of the first candidate control channel and a second parameter, and the second parameter represents an offset relative to the Search Space set index of the first candidate control channel.

14. The method of claim 11, wherein the indexes of the other candidate control channels are determined by using the index of the first candidate control channel and a third parameter, and the third parameter represents an offset relative to the index of the first candidate control channel.

15. The method of claim 12, wherein the CCE indexes of the other candidate control channels are determined by using the CCE index of the first candidate control channel and a fourth parameter, and the fourth parameter represents an offset relative to the CCE index of the first candidate control channel.

16. A network device, comprising:

a first processor; and

a first memory configured to store a computer program executable on the processor,

wherein the first processor is configured to implement the method of any one of claims 1 to 8 when running the computer program.

17. A User Equipment (UE), comprising:

a second processor; and

a second memory configured to store a computer program executable on the processor,

wherein the second processor is configured to implement the method of any one of claims 9 to 15 when running the computer program.

18. A storage medium, having stored thereon a computer program that when executed by a processor, implements the method of any one of claims 1 to 8, or implements the method of any one of claims 9 to 15.