

## CLAIMS

1. A first network entity for wireless communication, comprising:  
a communication interface; and  
one or more processors coupled to the communication interface, wherein the first network entity is configured to:  
    configure a second network entity with transmission configuration indication (TCI) state information for communication, wherein the TCI state information indicates a quasi co-location (QCL) type assumption; and  
    transmit, based on a rule that allows for a bandwidth part (BWP) identifier (ID) of a respective RS of one or more reference signals (RSs) to be unspecified in the TCI state information, the one or more RSs of the QCL type assumption.
2. The first network entity of claim 1, wherein the first network entity is configured to not reconfigure a TCI state of the second network entity based on the BWP ID of the respective RS being unspecified.
3. The first network entity of claim 1, wherein the rule allows for the BWP ID of the respective RS to be in an inactive BWP.
4. The first network entity of claim 1, wherein the first network entity is configured to not reconfigure a TCI state of the second network entity based on the respective RS not having an associated BWP ID.
5. The first network entity of claim 4, wherein the respective RS comprises a synchronization signal block (SSB)-based RS.

6. A method of wireless communication performed by a first network entity, comprising:  
 configuring a second network entity with transmission configuration indication (TCI) state information for communication, wherein the TCI state information indicates a quasi co-location (QCL) type assumption; and  
 transmitting, based on a rule that allows for a bandwidth part (BWP) identifier (ID) of a respective RS of one or more reference signals (RSs) to be unspecified in the TCI state information, the one or more RSs of the QCL type assumption.
7. The method of claim 6, further comprising not reconfiguring a TCI state of the second network entity based on the BWP ID of the respective RS being unspecified.
8. The method of claim 6, wherein the rule allows for the BWP ID of the respective RS to be in an inactive BWP.
9. The method of claim 6, further comprising not reconfiguring a TCI state of the second network entity based on the respective RS not having an associated BWP ID.
10. The method of claim 9, wherein the respective RS comprises a synchronization signal block (SSB)-based RS.
11. A first network entity for wireless communication, comprising:  
 a communication interface; and  
 one or more processors coupled to the communication interface, wherein the first network entity is configured to:  
 receive transmission configuration indication (TCI) state information for communication from a second network entity, wherein the TCI state information indicates a quasi co-location (QCL) type assumption; and  
 receive, based on a rule that allows for a bandwidth part (BWP) identifier (ID) of a respective RS of one or more reference signals (RSs) to be unspecified in the TCI state information, the one or more reference signals (RSs) of the QCL type assumption.

12. The first network entity of claim 11, wherein the first network entity is configured to determine not to reconfigure a TCI state based on the BWP ID of the respective RS being unspecified.
13. The first network entity of claim 11, wherein the rule allows for the BWP ID of the respective RS to be in an inactive BWP.
14. The first network entity of claim 11, wherein the first network entity is configured to determine not to reconfigure a TCI based on the respective RS not having an associated BWP ID.
15. The first network entity of claim 14, wherein the respective RS comprises a synchronization signal block (SSB)-based RS.
16. A method of wireless communication performed by a first network entity, comprising:  
receiving transmission configuration indication (TCI) state information for communication from a second network entity, wherein the TCI state information indicates a quasi co-location (QCL) type assumption; and  
receiving, based on a rule that allows for a bandwidth part (BWP) identifier (ID) of a respective reference signal (RS) of one or more RSs to be unspecified in the TCI state information, the one or more of the RSs of the QCL type assumption.
17. The method of claim 16, further comprising determining not to reconfigure a TCI state based on the BWP ID of the respective RS being unspecified.
18. The method of claim 16, wherein the rule allows for the BWP ID of the respective RS to be in an inactive BWP.
19. The method of claim 16, further comprising determining not to reconfigure a TCI state based on the respective RS not having an associated BWP ID.

20. The method of claim 19, wherein the respective RS comprises a synchronization signal block (SSB)-based RS.

21. A non-transitory computer-readable medium having code stored thereon that, when executed by at least one processor of a first network entity, causes the first network entity to:

- configure a second network entity with transmission configuration indication (TCI) state information for communication, wherein the TCI state information indicates a quasi co-location (QCL) type assumption; and
- transmit, based on a rule that allows for a bandwidth part (BWP) identifier (ID) of a respective RS of one or more reference signals (RSs) to be unspecified in the TCI state information, the one or more RSs of the QCL type assumption.

22. The non-transitory computer-readable medium of claim 21, wherein the code, when executed by the at least one processor of the first network entity, causes the first network entity to not reconfigure a TCI state of the second network entity based on the BWP ID of the respective RS being unspecified.

23. The non-transitory computer-readable medium of claim 21, wherein the rule allows for the BWP ID of the respective RS to be in an inactive BWP.

24. The non-transitory computer-readable medium of claim 21, wherein the code, when executed by the at least one processor of the first network entity, causes the first network entity to not reconfigure a TCI state of the second network entity based on the respective RS not having an associated BWP ID.

25. The non-transitory computer-readable medium of claim 24, wherein the respective RS comprises a synchronization signal block (SSB)-based RS.

26. A method of wireless communication by a network entity, comprising:

- configuring a UE with transmission configuration indication (TCI) state information for communication via multiple bandwidth parts (BWPs), wherein the TCI state information indicates one or more quasi co-location (QCL) type assumptions, wherein the one or more QCL

type assumptions include at least a first QCL type assumption; and

transmitting, according to a BWP switch, one or more reference signals (RSs) of the one or more QCL type assumptions based on one or more rules that define BWP switching for the one or more RSs of the one or more QCL type assumptions, wherein:

the BWP switch is from a first BWP identifier (ID) to a second BWP ID,

the one or more rules allow for a BWP ID of a respective RS of the one or more RSs to be unspecified in the TCI state information, and

when the BWP ID of the respective RS is unspecified in the TCI state information, the one or more rules specify that the BWP ID of the respective RS is to be the second BWP ID after the BWP switch.

27. The method of claim 26, wherein transmitting, according to the BWP switch, the one or more RSs of the one or more QCL type assumptions comprises not reconfiguring a TCI state of the UE in response to the BWP switch based on the BWP ID of the respective RS being unspecified.

28. The method of claim 26, wherein the one or more rules allow for the BWP ID of the respective RS to be in an inactive BWP.

29. The method of claim 28, wherein:

the BWP ID of the respective RS remains unchanged as the first BWP ID after the BWP switch, and

transmitting, according to the BWP switch, the one or more RSs comprises not reconfiguring a TCI state of the UE in response to the BWP switch based on the unchanged first BWP ID.

30. The method of claim 26, wherein:

the one or more rules specify that the respective RS is to be a certain type of RS that does not have an associated BWP ID in the TCI state information, and

transmitting, according to the BWP switch, the one or more RSs comprises not reconfiguring a TCI state of the UE in response to the BWP switch based on the certain type of

RS that does not have the associated BWP ID.

31. The method of claim 30, wherein the certain type of the RS that does not have the associated BWP ID comprises a synchronization signal block (SSB)-based RS.

32. The method of claim 26, wherein:  
the respective RS is associated with the first QCL type assumption,  
the one or more rules prevent BWP switching from an active BWP in which the  
respective RS, associated with the first QCL type assumption, is supported, and  
the BWP switch is performed in accordance with the one or more rules.

33. A method for wireless communications by a user equipment (UE), comprising:  
receiving transmission configuration indication (TCI) state information for  
communication via multiple bandwidth parts (BWPs), wherein the TCI state information  
indicates one or more quasi co-location (QCL) type assumptions, wherein the one or more QCL  
type assumptions include at least a first QCL type assumption; and

monitoring, according to a BWP switch, for at least a first reference signal (RS) of the  
one or more QCL type assumptions based on one or more rules that define BWP switching for  
the one or more RSs of the one or more QCL type assumptions, wherein:

the BWP switch is from a first BWP identifier (ID) to a second BWP ID,

the one or more rules allow for a BWP ID of the first RS to be unspecified in the  
TCI state information, and

when the BWP ID of the first RS is unspecified in the TCI state information, the  
one or more rules specify that the BWP ID of the first RS is to be the second BWP ID  
after the BWP switch.

34. The method of claim 33, wherein:  
the TCI state information includes a BWP ID of the first RS that is unspecified, and  
the monitoring for the first RS is based on the unspecified BWP ID of the first RS.

35. The method of claim 34, wherein monitoring for the first RS comprises, based on the unspecified BWP ID, using the first BWP ID as the second BWP ID to monitor for the first RS.
36. The method of claim 33, wherein:  
the one or more rules allow for a BWP ID of the first RS to be in an inactive BWP, and  
the TCI state information includes a BWP ID for the first RS that is in an inactive BWP.
37. The method of claim 36, wherein:  
the BWP ID of the first RS of the first QCL type assumption remains unchanged as the first BWP ID after the BWP switch, and  
the monitoring for the first RS is based on the unchanged first BWP ID.
38. The method of claim 33, wherein:  
the one or more rules specify that the first RS is to be a certain type of RS that does not have an associated BWP ID in the TCI state information,  
the first RS is the certain type of RS that does not have an associated BWP ID in the TCI state information, and  
the monitoring for the first RS is based on the certain type of RS that does not have the associated BWP ID.
39. The method of claim 38, wherein the certain type of the first RS comprises a synchronization signal block (SSB)-based RS.
40. An apparatus for wireless communications, comprising:  
at least one processor configured to:  
configure a UE with transmission configuration indication (TCI) state information for communication via multiple bandwidth parts (BWPs), wherein the TCI state information indicates one or more quasi co-location (QCL) type assumptions, wherein the one or more QCL type assumptions include at least a first QCL type assumption; and  
transmit, according to a BWP switch, one or more reference signals (RSs) of the one or more QCL type assumptions based on one or more rules that define BWP

switching for the one or more RSs of the one or more QCL type assumptions, wherein:  
     the BWP switch is from a first BWP identifier (ID) to a second BWP ID,  
     the one or more rules allow for a BWP ID of a respective RS of the one or more RSs to be unspecified in the TCI state information, and  
     when the BWP ID of the respective RS is unspecified in the TCI state information, the one or more rules specify that the BWP ID of the respective RS is to be the second BWP ID after the BWP switch; and  
 a memory coupled with the at least one processor.

41. The apparatus of claim 40, wherein in order to transmit, according to the BWP switch, the one or more RSs of the one or more QCL type assumptions, the at least one processor is further configured to not reconfigure a TCI state of the UE in response to the BWP switch based on the first QCL type assumption being unspecified.

42. The apparatus of claim 40, wherein the one or more rules allow for a BWP ID of the respective RS to be in an inactive BWP.

43. The apparatus of claim 42, wherein:  
     the BWP ID of the respective RS remains unchanged as the first BWP ID after the BWP switch, and  
     in order to transmit, according to the BWP switch, the one or more RSs of the one or more QCL type assumptions, the at least one processor is further configured to not reconfigure a TCI state of the UE in response to the BWP switch based on the unchanged first BWP ID.

44. The apparatus of claim 40, wherein:  
     the one or more rules specify that the respective RS is to be a certain type of RS that does not have an associated BWP ID in the TCI state information, and  
     in order to transmit, according to the BWP switch, the one or more RSs of the one or more QCL type assumptions, the at least one processor is further configured to not reconfigure a TCI state of the UE in response to the BWP switch based on the certain type of RS that does not have the associated BWP ID.

45. The apparatus of claim 44, wherein the certain type of the RS that does not have the associated BWP ID comprises a synchronization signal block (SSB)-based RS.
46. The apparatus of claim 40, wherein:  
the respective RS is associated with the first QCL type assumption,  
the one or more rules prevent BWP switching from an active BWP in which the respective RS, associated with the first QCL type assumption, is supported, and  
the BWP switch is performed in accordance with the one or more rules.
47. An apparatus for wireless communications, comprising:  
at least one processor configured to:  
receive transmission configuration indication (TCI) state information for communication via multiple bandwidth parts (BWPs), wherein the TCI state information indicates one or more quasi co-location (QCL) type assumptions, wherein the one or more QCL type assumptions include at least a first QCL type assumption; and  
monitor, according to a BWP switch, for at least a first reference signal (RS) of the one or more QCL type assumptions based on one or more rules that define BWP switching for the one or more RSs of the one or more QCL type assumptions, wherein:  
the BWP switch is from a first BWP identifier (ID) to a second BWP ID,  
the one or more rules allow for a BWP ID of the first RS to be unspecified in the TCI state information, and  
when the BWP ID of the first RS is unspecified in the TCI state information, the one or more rules specify that the BWP ID of the first RS is to be the second BWP ID after the BWP switch; and  
a memory coupled with the at least one processor.
48. The apparatus of claim 47, wherein:  
the TCI state information includes a BWP ID of the first RS that is unspecified, and  
the at least one processor is further configured to monitor for the first RS based on the unspecified BWP ID of the first RS.

49. The apparatus of claim 48, wherein, in order to monitor for the first RS based on the unspecified BWP ID, the processor is further configured to monitor for the first RS using the first BWP ID as the second BWP ID.
50. The apparatus of claim 47, wherein:  
the one or more rules allow for a BWP ID of the first RS to be in an inactive BWP, and  
the TCI state information includes a BWP ID for the first RS that is in an inactive BWP.
51. The apparatus of claim 50, wherein:  
the BWP ID of the first RS remains unchanged as the first BWP ID after the BWP switch, and  
the at least one processor is further configured to monitor for the first RS based on the unchanged first BWP ID.
52. The apparatus of claim 47, wherein:  
the one or more rules specify that the first RS is to be a certain type of RS that does not have an associated BWP ID in the TCI state information, the first RS is the certain type of RS that does not have an associated BWP ID in the TCI state information, and  
the at least one processor is further configured to monitor for the first RS based on the certain type of RS that does not have the associated BWP ID.
53. The apparatus of claim 52, wherein the certain type of the first RS comprises a synchronization signal block (SSB)-based RS.