

CLAIMS

1. 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; 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.
2. The method of claim 1, 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.
3. The method of claim 1, wherein the one or more rules allow for the BWP ID of the respective RS to be in an inactive BWP.
4. The method of claim 3, 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.

5. The method of claim 1, 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.

6. The method of claim 5, wherein the certain type of the RS that does not have the associated BWP ID comprises a synchronization signal block (SSB)-based RS.

7. The method of claim 1, 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.

8. 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.

9. The method of claim 8, 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.
10. The method of claim 9, 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.
11. The method of claim 8, 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.
12. The method of claim 11, 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.
13. The method of claim 8, 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.
14. The method of claim 13, wherein the certain type of the first RS comprises a synchronization signal block (SSB)-based RS.
15. 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.

16. The apparatus of claim 15, 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.

17. The apparatus of claim 15, wherein the one or more rules allow for a BWP ID of the respective RS to be in an inactive BWP.

18. The apparatus of claim 17, 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.

19. The apparatus of claim 15, 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.

20. The apparatus of claim 19, wherein the certain type of the RS that does not have the associated BWP ID comprises a synchronization signal block (SSB)-based RS.

21. The apparatus of claim 15, 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.

22. 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.

23. The apparatus of claim 22, 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.

24. The apparatus of claim 23, 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.

25. The apparatus of claim 22, 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.

26. The apparatus of claim 25, 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.

27. The apparatus of claim 22, 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.

28. The apparatus of claim 27, wherein the certain type of the first RS comprises a synchronization signal block (SSB)-based RS.