~~CLAIMS~~

~~**What is claimed is:**~~

CLAIMS

1. A method for wireless communication as a user equipment (UE), comprising:

receiving, using one or more receive beams associated with a transmission configuration indicator (TCI) state, a downlink transmission from a plurality of transmission reception points (TRPs) identified by a plurality of physical cell identifiers (PCIs);

identifying, based at least in part on the TCI state and an association between the plurality of PCIs and a plurality of TCI states, a first PCI of the plurality of PCIs to use to ~~decode~~process the received downlink transmission; and

~~decoding~~processing the received downlink transmission using the identified first PCI.

2. The method of claim 1, further comprising:

receiving an indication of the association between the plurality of PCIs and the TCI state.

3. The method of claim 1, wherein the TCI state is associated with at least the first PCI and a second PCI of the plurality of PCIs.

4. The method of claim 3, further comprising:

receiving a synchronization signal block (SSB) during an initial access procedure of the UE; and

determining a PCI based at least in part on the received SSB, wherein the first PCI of the plurality of PCIs to use to decode the received downlink transmission comprises the determined PCI.

5. The method of claim 3, further comprising:

identifying that one of a first TRP or a second TRP has radio link management (RLM) resources configured for the UE, wherein the received downlink transmission is decoded using the first PCI identifying the first TRP or the first PCI identifying the second TRP according to the one of the first TRP or the second TRP having the RLM resources configured.

6. The method of claim 3, further comprising:

identifying a configuration of the UE to receive broadcast transmissions from one of a first TRP or a second TRP, wherein the received downlink transmission is decoded using the first PCI identifying the first TRP or the first PCI identifying the second TRP according to the identified configuration.

7. The method of claim 3, further comprising:

determining that the first PCI has a smaller value than the second PCI, wherein the first PCI is identified based at least in part on the determination.

8. The method of claim 1, further comprising:

receiving, using one or more receive beams associated with a second TCI state, a second downlink transmission for a first TRP and a second TRP;

identifying that the second TCI state lacks an associated PCI; and

decoding the received second downlink transmission using a default PCI.

9. The method of claim 1, further comprising:

monitoring for the downlink transmission in a common search space.

10. The method of claim 9, wherein the downlink transmission comprises a downlink control channel signal in the common search space.

11. A method for wireless communication at a base station, comprising:

identifying an association between a plurality of physical cell identifiers (PCIs) and a plurality of transmission configuration indicator (TCI) states for a user equipment (UE), the plurality of PCIs identifying a plurality of transmission reception points (TRPs);

transmitting, to the UE, an indication of the identified association; and

transmitting, to the UE based at least in part on transmitting the indication of the identified association, a downlink transmission encoded according to a first PCI or a second PCI based at least in part on the identified association.

12. The method of claim 11, further comprising:

identifying ~~a~~the first PCI of the plurality of PCIs ~~used to encode~~associated with a synchronization signal block (SSB) for the UE during initial access for the UE, wherein the downlink transmission is encoded using the first PCI based at least in part on the identification.

13. The method of claim 11, further comprising:

identifying that one of a first TRP of the plurality of TRPs or a second TRP of

the plurality of TRPs has radio link management (RLM) resources configured for the UE, wherein the downlink transmission is encoded using the first PCI identifying the first TRP or the second PCI identifying the second TRP according to the one of the first TRP or the second TRP having the RLM resources configured.

14. The method of claim 11, further comprising:

identifying a configuration of the UE to receive broadcast transmissions from one of a first TRP of the plurality of TRPs or a second TRP of the plurality of TRPs, wherein the downlink transmission is encoded using the first PCI identifying the first TRP or the first PCI identifying the second TRP according to the identified configuration.

15. The method of claim 11, further comprising:

determining that the first PCI or the second PCI has a smaller value than an other of the first PCI or the second PCI, wherein the downlink transmission is encoded using the first PCI or the second PCI having the smaller value.

16. An apparatus for wireless communication as a user equipment (UE), comprising:

~~means for receiving~~a processor, memory coupled with the processor; and instructions stored in the memory and operable, when executed by the processor, to cause the apparatus to:

receive, using one or more receive beams associated with a transmission configuration indicator (TCI) state, a downlink transmission from a plurality of transmission reception points (TRPs) identified by a plurality of physical cell identifiers (PCIs);

~~means for identifying~~identify, based at least in part on the TCI state and an association between the plurality of PCIs and a plurality of TCI states, a first PCI of the plurality of PCIs to use to ~~decode~~process the received downlink transmission; and

~~means for decoding~~process the received downlink transmission using the identified first PCI.

17. The apparatus of claim 16, wherein the instructions are further ~~comprising~~ executable by the processor to cause the apparatus to:

~~means for receiving~~receive an indication of the association between the plurality of PCIs and the TCI state.

18. The apparatus of claim 16, wherein the TCI state is associated with at

least the first PCI and a second PCI of the plurality of PCIs.

19. The apparatus of claim 18, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for receiving~~receive a synchronization signal block (SSB) during an initial access procedure of the UE; and

~~means for determining~~determine a PCI based at least in part on the received SSB, wherein the first PCI of the plurality of PCIs to use to decode the received downlink transmission comprises the determined PCI.

20. The apparatus of claim 18, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for identifying~~identify that one of a first TRP or a second TRP has radio link management (RLM) resources configured for the UE, wherein the received downlink transmission is decoded using the first PCI identifying the first TRP or the first PCI identifying the second TRP according to the one of the first TRP or the second TRP having the RLM resources configured.

21. The apparatus of claim 18, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for identifying~~identify a configuration of the UE to receive broadcast transmissions from one of a first TRP or a second TRP, wherein the received downlink transmission is decoded using the first PCI identifying the first TRP or the first PCI identifying the second TRP according to the identified configuration.

22. The apparatus of claim 18, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for determining~~determine that the first PCI has a smaller value than the second PCI, wherein the first PCI is identified based at least in part on the determination.

23. The apparatus of claim 16, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for receiving~~receive, using one or more receive beams associated with a second TCI state, a second downlink transmission for a first TRP and a second TRP;

~~means for identifying~~identify that the second TCI state lacks an associated PCI; and

~~means for decoding~~decode the received second downlink transmission using a default PCI.

24. The apparatus of claim 16, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for monitoring~~monitor for the downlink transmission in a common search space.

25. The apparatus of claim 24, wherein the downlink transmission comprises a downlink control channel signal in the common search space.

26. An apparatus for wireless communication at a base station, comprising:

~~means for identifying~~a processor, memory coupled with the processor; and instructions stored in the memory and operable, when executed by the processor, to cause the apparatus to:

identify an association between a plurality of physical cell identifiers (PCIs) and a plurality of transmission configuration indicator (TCI) states for a user equipment (UE), the plurality of PCIs identifying a plurality of transmission reception points (TRPs);

~~means for transmitting~~transmit, to the UE, an indication of the identified association; and

~~means for transmitting~~transmit, to the UE based at least in part on transmitting the indication of the identified association, a downlink transmission encoded according to a first PCI or a second PCI based at least in part on the identified association.

27. The apparatus of claim 26, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for identifying a~~identify the first PCI of the plurality of PCIs ~~used to encode~~associated with a synchronization signal block (SSB) for the UE during initial access for the UE, wherein the downlink transmission is encoded using the first PCI based at least in part on the identification.

28. The apparatus of claim 26, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for identifying~~identify that one of a first TRP of the plurality of TRPs or a second TRP of the plurality of TRPs has radio link management (RLM) resources configured for the UE, wherein the downlink transmission is encoded using the first PCI identifying the first TRP or the second PCI identifying the second TRP according to the one

of the first TRP or the second TRP having the RLM resources configured.

29. The apparatus of claim 26, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for identifying~~identify a configuration of the UE to receive broadcast transmissions from one of a first TRP of the plurality of TRPs or a second TRP of the plurality of TRPs, wherein the downlink transmission is encoded using the first PCI identifying the first TRP or the first PCI identifying the second TRP according to the identified configuration.

30. The apparatus of claim 26, wherein the instructions are further ~~comprising~~executable by the processor to cause the apparatus to:

~~means for determining~~determine that the first PCI or the second PCI has a smaller value than an other of the first PCI or the second PCI, wherein the downlink transmission is encoded using the first PCI or the second PCI having the smaller value.