CLAIMS

1. A method of wireless communication, comprising: configuring, at a network entity, at least one dedicated Demodulation Reference Signal (DMRS) in one or more symbols corresponding to a Physical Broadcast Channel (PBCH), each dedicated DMRS being used for demodulating the PBCH, wherein configuring the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH further comprises assigning the at least one dedicated DMRS to one or more symbols having a same numerology as the one or more symbols corresponding to the PBCH; and transmitting, by the network entity, the at least one dedicated DMRS to one or more user equipments (UEs) using at least a single antenna port.

2. The method of claim 1, wherein configuring the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH further comprises interleaving the at least one dedicated DMRS in each of the one or more symbols corresponding to the PBCH based on frequency division multiplexing (FDM).

3. The method of claim 2, wherein interleaving the at least one dedicated DMRS in each of the one or more symbols corresponding to the PBCH based on FDM further comprises assigning a resource element (RE) to each dedicated DMRS symbol of each of the at least one dedicated DMRS.

4. The method of claim 3, wherein a remaining plurality of REs of each of the one or more symbols carry the PBCH, each of the remaining plurality of REs correspond to REs not assigned for each dedicated DMRS.

5. The method of claim 2, wherein transmitting the at least one dedicated DMRS to the one or more UEs using at least the single antenna port configuration further comprises transmitting each of the one or more symbols corresponding to the PBCH with the interleaved at least one dedicated DMRS using the single antenna port.

6. The method of claim 1, wherein having the same numerology corresponds to each of the one

or more symbols assigned with the at least one dedicated DMRS and each of the one or more symbols corresponding to the PBCH being configured with an identical sub-carrier spacing and cyclic prefix.

7. The method of claim 1, wherein assigning the at least one dedicated DMRS to the one or more symbols having the same numerology as the one or more symbols corresponding to the PBCH further comprises assigning a first dedicated DMRS to a first symbol and a second dedicated DMRS to a second symbol, the first dedicated DMRS being configured for a first antenna port and the second dedicated DMRS being configured for a second antenna port.

8. The method of claim 7, wherein transmitting the at least one dedicated DMRS to the one or more UEs using at least the single antenna port configuration further comprises: transmitting the first dedicated DMRS to the one or more UEs using the first antenna port; and transmitting the second dedicated DMRS to the one or more UEs using the second antenna port.

9. The method of claim 1, wherein assigning the at least one dedicated DMRS to the one or more symbols having the same numerology as the one or more symbols corresponding to the PBCH further comprises assigning a first dedicated DMRS to a first symbol and a second dedicated DMRS to a second symbol, each of the first dedicated DMRS and the second dedicated DMRS includes a first transmission combination and a second transmission combination; and wherein transmitting the at least one dedicated DMRS to the one or more UEs using at least the single antenna port configuration further comprises: transmitting, for each of the first dedicated DMRS and the second dedicated DMRS, a first subset of tones to the one or more UEs using a first antenna port; and transmitting, for each of the first dedicated DMRS and the second dedicated DMRS, a second subset of tones to the one or more UEs using a second antenna port, the second subset of tones differing from the first subset of tones.

10. The method of claim 1, wherein configuring the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH further comprises configuring the at least one dedicated DMRS in each of the one or more symbols corresponding to the PBCH.

11. A method of wireless communication, comprising: receiving, at a user equipment (UE), at least one dedicated Demodulation Reference Signal (DMRS) in one or more symbols corresponding to a Physical Broadcast Channel (PBCH) from a network entity, each dedicated DMRS being used for demodulating the PBCH, wherein receiving the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH from the network entity further comprises receiving a first dedicated DMRS to a first symbol and a second dedicated DMRS to a second symbol, and wherein the first dedicated DMRS in the first symbol and the second dedicated DMRS in the second symbol have a same numerology as the one or more symbols corresponding to the PBCH; performing, by the UE, a channel estimation procedure on the PBCH based on the at least one dedicated DMRS; and demodulating, by the UE, the PBCH based on a result of performing the channel estimation procedure.

12. The method of claim 11, wherein the at least one dedicated DMRS is interleaved in each of the one or more symbols corresponding to the PBCH based on frequency division multiplexing (FDM).

13. The method of claim 12, wherein each of the one or more symbols corresponding to the PBCH includes a resource element (RE) assigned to each dedicated DMRS symbol of each of the at least one dedicated DMRS.

14. The method of claim 13, wherein each of the one or more symbols corresponding to the PBCH includes a remaining plurality of REs carrying the PBCH, each of the remaining plurality of REs correspond to REs not assigned for each dedicated DMRS.

15. The method of claim 11, wherein receiving the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH from the network entity further comprises receiving the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH from the network entity based on a single antenna port of the network entity.

16. The method of claim 11, wherein having the same numerology corresponds to each of the first symbol and second symbol and each of the one or more symbols corresponding to the

PBCH being configured with an identical sub-carrier spacing and cyclic prefix.

17. The method of claim 11, wherein receiving the first dedicated DMRS and the second dedicated DMRS further comprises receiving the first dedicated DMRS and the second dedicated DMRS based on a first antenna port and a second antenna port of the network entity.

18. An apparatus for wireless communication, comprising: a memory; and a processor in communication with the memory, wherein the processor is configured to: configure at least one dedicated Demodulation Reference Signal (DMRS) in one or more symbols corresponding to a Physical Broadcast Channel (PBCH), each dedicated DMRS being used for demodulating the PBCH, wherein the processor configured to configure the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH is further configured to assign the at least one dedicated DMRS to one or more symbols having a same numerology as the one or more symbols corresponding to the PBCH; and transmit the at least one dedicated DMRS to one or more user equipments (UEs) using at least a single antenna port.

19. The apparatus of claim 18, wherein the processor configured to configure the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH further is further configured to interleave the at least one dedicated DMRS in each of the one or more symbols corresponding to the PBCH based on frequency division multiplexing (FDM).

20. The apparatus of claim 19, wherein the processor configured to interleave the at least one dedicated DMRS in each of the one or more symbols corresponding to the PBCH based on FDM is further configured to assign a resource element (RE) to each dedicated DMRS symbol of each of the at least one dedicated DMRS.

21. The apparatus of claim 20, wherein a remaining plurality of REs of each of the one or more symbols carry the PBCH, each of the remaining plurality of REs correspond to REs not assigned for each dedicated DMRS.

22. The apparatus of claim 19, wherein the processor configured to transmit the at least one

dedicated DMRS to the one or more UEs using at least the single antenna port configuration is further configured to transmit each of the one or more symbols corresponding to the PBCH with the interleaved at least one dedicated DMRS using the single antenna port.

23. The apparatus of claim 18, wherein having the same numerology corresponds to each of the one or more symbols assigned with the at least one dedicated DMRS and each of the one or more symbols corresponding to the PBCH being configured with an identical sub-carrier spacing and cyclic prefix.

24. The apparatus of claim 18, wherein the processor configured to assign the at least one dedicated DMRS to the one or more symbols having the same numerology as the one or more symbols corresponding to the PBCH is further configured to assign a first dedicated DMRS to a first symbol and a second dedicated DMRS to a second symbol, the first dedicated DMRS being configured for a first antenna port and the second dedicated DMRS being configured for a second antenna port.

25. The apparatus of claim 24, wherein the processor configured to transmit the at least one dedicated DMRS to the one or more UEs using at least the single antenna port configuration is further configured to: transmit the first dedicated DMRS to the one or more UEs using the first antenna port; and transmit the second dedicated DMRS to the one or more UEs using the second antenna port.

26. The apparatus of claim 18, wherein the processor configured to assign the at least one dedicated DMRS to the one or more symbols having the same numerology as the one or more symbols corresponding to the PBCH is further configured to assign a first dedicated DMRS to a first symbol and a second dedicated DMRS to a second symbol, each of the first dedicated DMRS and the second dedicated DMRS includes a first transmission combination and a second transmission combination; and wherein the processor configured to transmit the at least one dedicated DMRS to the one or more UEs using at least the single antenna port configuration is further configured to: transmit, for each of the first dedicated DMRS and the second dedicated DMRS, a first subset of tones to the one or more UEs using a first antenna port; and transmit, for

each of the first dedicated DMRS and the second dedicated DMRS, a second subset of tones to the one or more UEs using a second antenna port, the second subset of tones differing from the first subset of tones.

27. The apparatus of claim 18, wherein the processor configured to configure the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH is further configured to configure the at least one dedicated DMRS in each of the one or more symbols corresponding to the PBCH.

28. An apparatus for wireless communication, comprising: a memory; and a processor in communication with the memory, wherein the processor is configured to: receive, at a user equipment (UE), at least one dedicated Demodulation Reference Signal (DMRS) in one or more symbols corresponding to a Physical Broadcast Channel (PBCH) from a network entity, each dedicated DMRS being used for demodulating the PBCH, wherein the processor configured to receive the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH from the network entity is further configured to receive a first dedicated DMRS to a first symbol and a second dedicated DMRS to a second symbol, wherein the first dedicated DMRS in the first symbol and the second dedicated DMRS in the second symbol have a same numerology as the one or more symbols corresponding to the PBCH; perform, by the UE, a channel estimation procedure on the PBCH based on the at least one dedicated DMRS; and demodulate, by the UE, the PBCH based on a result of performing the channel estimation procedure.

29. The apparatus of claim 28, wherein the at least one dedicated DMRS is interleaved in each of the one or more symbols corresponding to the PBCH based on frequency division multiplexing (FDM).

30. The apparatus of claim 29, wherein each of the one or more symbols corresponding to the PBCH includes a resource element (RE) assigned to each dedicated DMRS symbol of each of the at least one dedicated DMRS.

31. The apparatus of claim 30, wherein each of the one or more symbols corresponding to the

PBCH includes a remaining plurality of REs carrying the PBCH, each of the remaining plurality of REs correspond to REs not assigned for each dedicated DMRS.

32. The apparatus of claim 28, wherein the processor configured to receive the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH from the network entity is further configured to receive the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH from the network entity based on a single antenna port of the network entity.

33. The apparatus of claim 28, wherein having the same numerology corresponds to each of the first symbol and second symbol and each of the one or more symbols corresponding to the PBCH being configured with an identical sub-carrier spacing and cyclic prefix.

34. The apparatus of claim 28, wherein the processor configured to receive the first dedicated DMRS and the second dedicated DMRS is further configured to receive the first dedicated DMRS and the second dedicated DMRS based on a first antenna port and a second antenna port of the network entity.

35. A non-transitory computer-readable medium storing computer code executable for wireless communications, comprising: code for configuring, at a network entity, at least one dedicated Demodulation Reference Signal (DMRS) in one or more symbols corresponding to a Physical Broadcast Channel (PBCH), each dedicated DMRS being used for demodulating the PBCH, wherein code for configuring the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH further comprises code for assigning the at least one dedicated DMRS to one or more symbols having a same numerology as the one or more symbols corresponding to the PBCH; and code for transmitting, by the network entity, the at least one dedicated DMRS to one or more user equipments (UEs) using at least a single antenna port.

36. A non-transitory computer-readable medium storing computer code executable for wireless communications, comprising: code for receiving, at a user equipment (UE), at least one dedicated Demodulation Reference Signal (DMRS) in one or more symbols corresponding to a

Physical Broadcast Channel (PBCH) from a network entity, each dedicated DMRS being used for demodulating the PBCH, wherein code for receiving the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH from the network entity further comprises code for receiving a first dedicated DMRS to a first symbol and a second dedicated DMRS to a second symbol, and wherein the first dedicated DMRS in the first symbol and the second dedicated DMRS in the second symbol have a same numerology as the one or more symbols corresponding to the PBCH; code for performing, by the UE, a channel estimation procedure on the PBCH based on the at least one dedicated DMRS; and code for demodulating, by the UE, the PBCH based on a result of performing the channel estimation procedure.

37. An apparatus for wireless communication, comprising: means for configuring, at a network entity, at least one dedicated Demodulation Reference Signal (DMRS) in one or more symbols corresponding to a Physical Broadcast Channel (PBCH), each dedicated DMRS being used for demodulating the PBCH, wherein means for configuring the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH further comprises means for assigning the at least one dedicated DMRS to one or more symbols having a same numerology as the one or more symbols corresponding to the PBCH; and means for transmitting, by the network entity, the at least one dedicated DMRS to one or more user equipments (UEs) using at least a single antenna port.

38. An apparatus for wireless communications, comprising: means for receiving, at a user equipment (UE), at least one dedicated Demodulation Reference Signal (DMRS) in one or more symbols corresponding to a Physical Broadcast Channel (PBCH) from a network entity, each dedicated DMRS being used for demodulating the PBCH, wherein means for receiving the at least one dedicated DMRS in the one or more symbols corresponding to the PBCH from the network entity further comprises means for receiving a first dedicated DMRS to a first symbol and a second dedicated DMRS to a second symbol, and wherein the first dedicated DMRS in the first symbol and the second dedicated DMRS in the second symbol have a same numerology as the one or more symbols corresponding to the PBCH; means for performing, by the UE, a channel estimation procedure on the PBCH based on the at least one dedicated DMRS; and means for demodulating, by the UE, the PBCH based on a result of performing the channel

estimation procedure.