CLAIMS

1. A method of wireless communication, comprising: receiving a sounding reference signal (SRS) configuration from a network; configuring at least four antennas of a scheduled entity based on the SRS configuration, wherein the SRS configuration configures at least one of the at least four antennas to simultaneously support SRS antenna switching and an uplink (UL) multiple-input multiple-output (MIMO) communication, wherein the configuring comprises configuring the scheduled entity to simultaneously support 1T4R SRS antenna switching and 1T2R antenna selection of the UL MIMO communication; and transmitting an SRS communication according to the SRS configuration.

2. The method of claim 1, further comprising reporting to the network a user equipment (UE) capability of transmitting the SRS communication.

3. The method of claim 1, wherein the scheduled entity comprises four antennas configured to operate in a 2T4R mode, and wherein the configuring comprises configuring the scheduled entity according to an SRS 2T4R configuration in which two of the four antennas are configured to simultaneously support the SRS antenna switching and the UL MIMO communication.

4. The method of claim 3, wherein the configuring comprises having an unequal number of antennas configured to support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

5. The method of claim 4, wherein the configuring comprises having the four antennas configured to support the SRS antenna switching, and a pair of the four antennas configured to simultaneously support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

6. The method of claim 3, wherein the configuring comprises having an equal number of antennas configured to support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

7. The method of claim 6, wherein the configuring comprises having the scheduled entity utilize a predetermined subset of all antenna pair combinations associated with the four antennas to simultaneously support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

8. The method of claim 6, wherein the configuring comprises having the scheduled entity utilize all antenna pair combinations associated with the four antennas based on the SRS configuration to simultaneously support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

9. The method of claim 6, wherein the configuring comprises having the scheduled entity utilize a subset of antenna pair combinations associated with the four antennas to support the SRS antenna switching in a first UL channel.

10. The method of claim 9, further comprising predefining antenna pairs {0,1} and {2,3} of the four antennas to support the SRS antenna switching in 2T4R.

11. The method of claim 9, further comprising predefining antenna pairs {0,1}, {0,2}, and {0,3} of the four antennas to support the SRS antenna switching in 2T4R.

12. The method of claim 1, wherein the configuring comprises configuring the scheduled entity to implement an SRS pattern that is shifted based on a parameter associated with the scheduled entity.

13. A wireless communication device comprising: means for receiving a sounding reference signal (SRS) configuration from a network; means for configuring at least four antennas of a scheduled entity based on the SRS configuration, wherein the SRS configuration configures at least one of the at least four antennas to simultaneously support SRS antenna switching and an uplink (UL) multiple-input multiple-output (MIMO) communication, wherein the configuring comprises configuring the scheduled entity to simultaneously support 1T4R SRS antenna switching and 1T2R antenna selection of the UL MIMO communication; and means for transmitting an SRS communication according to the SRS configuration.

14. The wireless communication device of claim 13, wherein the means for configuring is configured to configure the at least four antennas to implement an SRS pattern that is shifted based on a parameter associated with the scheduled entity.

15. The wireless communication device of claim 14, wherein the parameter is a total number of antennas included in the scheduled entity.

16. The wireless communication device of claim 14, wherein the parameter is a total number of antenna pairs included in the scheduled entity.

17. The wireless communication device of claim 14, wherein the parameter is whether the scheduled entity is enabled for frequency hopping.

18. A method of wireless communication, comprising: receiving a transmission capability reporting from a scheduled entity, wherein the scheduled entity comprises at least four antennas; performing a determination based on the transmission capability reporting of whether the scheduled entity may simultaneously support sounding reference signal (SRS) antenna switching and an uplink (UL) multiple-input multiple-output (MIMO) communication; and generating an SRS configuration for the scheduled entity based on the determination, wherein a

default SRS configuration comprises configuring at least one of the at least four antennas to simultaneously support the SRS antenna switching and the UL MIMO communication, wherein the generating comprises generating the SRS configuration to simultaneously support 1T4R SRS antenna switching and 1T2R antenna selection of the UL MIMO communication.

19. The method of claim 18, wherein the scheduled entity comprises four antennas configured to operate in a 2T4R mode, and wherein the generating comprises generating an SRS 2T4R configuration in which two of the four antennas are configured to simultaneously support the SRS antenna switching and the UL MIMO communication.

20. The method of claim 19, wherein the generating comprises generating the SRS configuration to include having an unequal number of antennas configured to support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

21. The method of claim 20, wherein the generating comprises generating the SRS configuration to include having the four antennas configured to support the SRS antenna switching, and a pair of the four antennas configured to simultaneously support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

22. The method of claim 19, wherein the generating comprises generating the SRS configuration to include having an equal number of antennas configured to support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

23. The method of claim 22, wherein the generating comprises generating the SRS configuration to include having the scheduled entity utilize a predetermined subset of all antenna pair combinations associated with the four antennas to simultaneously support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

24. The method of claim 22, wherein the generating comprises generating the SRS configuration to include having the scheduled entity utilize all antenna pair combinations associated with the four antennas based on the SRS configuration to simultaneously support the SRS antenna switching in a first UL channel and the UL MIMO communication in a second UL channel.

25. The method of claim 22, wherein the generating comprises generating the SRS configuration to include having the scheduled entity utilize a subset of antenna pair combinations associated with the four antennas to support the SRS antenna switching in a first UL channel.

26. The method of claim 25, further comprising predefining antenna pairs {0,1} and {2,3} of the four antennas to support the SRS antenna switching in 2T4R.

27. The method of claim 25, further comprising predefining antenna pairs {0,1}, {0,2}, and {0,3} of the four antennas to support the SRS antenna switching in 2T4R.

28. The method of claim 18, wherein the generating comprises generating the SRS configuration to include an SRS pattern that is shifted based on a parameter associated with the scheduled entity.

29. A wireless communication device comprising: means for receiving a transmission capability reporting from a scheduled entity, wherein the scheduled entity comprises at least four antennas; means for performing a determination based on the transmission capability reporting of whether the scheduled entity may simultaneously support sounding reference signal (SRS) antenna switching and an uplink (UL) multiple-input multiple-output (MIMO) communication; and means for generating an SRS configuration for the scheduled entity based on the determination, wherein a default SRS configuration comprises configuring at least one of the at least four antennas to simultaneously support the SRS antenna switching and the UL MIMO communication, wherein the generating comprises generating the SRS configuration to

simultaneously support 1T4R SRS antenna switching and 1T2R antenna selection of the UL MIMO communication.

30. The wireless communication device of claim 29, wherein the means for generating is configured to generate the SRS configuration to include an SRS pattern that is shifted based on a parameter associated with the scheduled entity.

31. The wireless communication device of claim 30, wherein the parameter is a total number of antennas included in the scheduled entity.

32. The wireless communication device of claim 30, wherein the parameter is a total number of antenna pairs included in the scheduled entity.

33. The wireless communication device of claim 30, wherein the parameter is whether the scheduled entity is enabled for frequency hopping.

34. A wireless communication device comprising: a processor; and memory; the processor and memory configured to: receive a sounding reference signal (SRS) configuration from a network; configure at least four antennas of a scheduled entity based on the SRS configuration, wherein the SRS configuration configures at least one of the at least four antennas to simultaneously support SRS antenna switching and an uplink (UL) multiple-input multiple-output (MIMO) communication, wherein the configuring comprises configuring the scheduled entity to simultaneously support 1T4R SRS antenna switching and 1T2R antenna selection of the UL MIMO communication; and transmit an SRS communication according to the SRS configuration.

35. A wireless communication device comprising: a processor; and memory; the processor and memory configured to: receive a transmission capability reporting from a scheduled entity,

wherein the scheduled entity comprises at least four antennas; perform a determination based on the transmission capability reporting of whether the scheduled entity may simultaneously support sounding reference signal (SRS) antenna switching and an uplink (UL) multiple-input multiple-output (MIMO) communication; and generate an SRS configuration for the scheduled entity based on the determination, wherein a default SRS configuration comprises configuring at least one of the at least four antennas to simultaneously support the SRS antenna switching and the UL MIMO communication, wherein the generating comprises generating the SRS configuration to simultaneously support 1T4R SRS antenna switching and 1T2R antenna selection of the UL MIMO communication.