CLAIMS

1. A wireless transmit/receive unit (WTRU), comprising:

a processor and memory configured to:

receive configuration information indicating a first resource pool, a second resource pool, and information associated with one or more sidelink positioning reference signals (SL-PRSs), wherein the information associated with the one or more SL-PRSs comprises an indication of the identifications (IDs) associated with the one or more SL-PRSs, wherein the one or more SL-PRSs are associated with the first resource pool or the second resource pool, wherein the first resource pool allows for multiplexing of SL-PRSs with sidelink data, and wherein the second resource pool does not allow for multiplexing SL-PRSs with sidelink data;

receive sidelink control information (SCI), wherein the SCI comprises an indication to receive one or more SL-PRSs via resources associated with the first resource pool or via resources associated with the second resource pool; and

wherein, the SCI comprises an indication that the transmission via the resources associated with the first resource pool comprises one or more SL-PRSs, an indication of ID associated with the one or more SL-PRSs, and a priority associated with the one or more SL-PRSs; and

wherein, the SCI comprises a cast type associated with the one or more SL-PRSs, an indication of the IDs of the one or more SL-PRSs, and a priority associated with the one or more SL-PRSs;

receive the one or more SL-PRSs indicated by the SCI via resources associated with the first resource pool or via resources associated with the second resource pool.

2. The WTRU of claim 1, wherein the information associated with the one or more SL-PRSs comprises a pattern associated with the one or more SL-PRSs.

3. The WTRU of claim 1, wherein the information associated with the one or more SL-PRSs comprises time and frequency resources associated with transmissions of the one or more SL-PRSs.

4. The WTRU of claim 1, wherein the information associated with the one or more SL-PRSs comprises a SL-PRS resource element offset, a SL-PRS symbol offset, or a number of SL-PRS symbols.

5. The WTRU of claim 1, wherein the cast type is one or unicast, groupcast, or broadcast.

6. The WTRU of claim 1, wherein the SCI further comprises a bitfield to indicate the availability of the one or more SL-PRSs.

7. The WTRU of claim 1, wherein the processor and memory are configured to:

send measurements associated with the one or more SL-PRSs.

8. The WTRU of claim 1, wherein the processor and memory are configured to:

decode transmissions associated with the first resource pool or the second resource pool in accordance with the SCI.

9. The WTRU of claim 1, wherein the processor and memory are configured to:

receive the SCI associated with the one or more SL-PRSs via the resources associated with the first resource pool; and

receive the one or more SL-PRSs via the resources associated with the first resource pool.

10. The WTRU of claim 1, wherein the processor and memory are configured to:

receive the SCI associated with the one or more SL-PRSs via the resources associated with the second resource pool; and

receive the one or more SL-PRSs via the resources associated with the second resource pool.

11. A method performed by a wireless transmit/receive unit (WTRU), the method comprising:

receiving configuration information indicating a first resource pool, a second resource pool, and information associated with one or more sidelink positioning reference signals (SL-PRSs), wherein the information associated with the one or more SL-PRSs comprises an indication of the identifications (IDs) associated with the one or more SL-PRSs, wherein the one or more SL-PRSs are associated with the first resource pool or the second resource pool, wherein the first resource pool allows for multiplexing of SL-PRSs with sidelink data, and wherein the second resource pool does not allow for multiplexing SL-PRSs with sidelink data;

receiving sidelink control information (SCI), wherein the SCI comprises an indication to receive one or more SL-PRSs via resources associated with the first resource pool or via resources associated with the second resource pool; and

wherein, the SCI comprises an indication that the transmission via the resources associated with the first resource pool comprises one or more SL-PRSs, an indication of ID associated with the one or more SL-PRSs, and a priority associated with the one or more SL-PRSs; and

wherein, the SCI comprises a cast type associated with the one or more SL-PRSs, an indication of the IDs of the one or more SL-PRSs, and a priority associated with the one or more SL-PRSs;

receiving the one or more SL-PRSs indicated by the SCI via resources associated with the first resource pool or via resources associated with the second resource pool.

12. The method of claim 11, wherein the information associated with the one or more SL-PRSs comprises a pattern associated with the one or more SL-PRSs.

13. The method of claim 11, wherein the information associated with the one or more SL-PRSs comprises time and frequency resources associated with transmissions of the one or more SL-PRSs.

14. The method of claim 11, wherein the information associated with the one or more SL-PRSs comprises a SL-PRS resource element offset, a SL-PRS symbol offset, or a number of SL-PRS symbols.

15. The method of claim 11, wherein the cast type is one or unicast, groupcast, or broadcast.

16. The method of claim 11, wherein the SCI further comprises a bitfield to indicate the availability of the one or more SL-PRSs.

17. The method of claim 11, further comprising:
sending measurements associated with the one or more SL-PRSs.

18. The method of claim 11, further comprising:
decoding transmissions associated with the first resource pool or the second resource pool in accordance with the SCI.

19. The method of claim 11, further comprising:
receiving the SCI associated with the one or more SL-PRSs via the resources associated with the first resource pool; and
receiving the one or more SL-PRSs via the resources associated with the first resource pool.

20. The method of claim 11, further comprising:
receiving the SCI associated with the one or more SL-PRSs via the resources associated with the second resource pool; and
receiving the one or more SL-PRSs via the resources associated with the second resource pool.