CLAIMS

1. A communication apparatus comprising:

circuitry, which in operation, determines a first plurality of time resources for resource selection, a second plurality of time resources for resource sensing, and a first subset of time resources from the first plurality of time resources, the first subset of time resources being a selection window for partial sensing, and selects a portion of the first subset of time resources; and

a transmitter, which in operation, transmits a sidelink (SL) signal in the selected portion of the first subset of time resources.

2. The communication apparatus of claim 1, wherein the circuitry is further configured to trigger the resource sensing and/or the resource selection based on a reference time slot, wherein the first plurality of time resources is before the reference time slot and the second plurality of time resources is after the reference time slot.

3. The communication apparatus of claim 1 or 2, wherein the circuitry is further configured to determine a third plurality of time resources, the third plurality of time resources being a time frame for partial sensing resource selection, wherein the first subset of time resources is an intersection of the third plurality of time resources and the first plurality of time resources.

4. The communication apparatus of any one of claims 1-3, wherein the circuitry is further configured to determine a second subset of time resources from the second plurality of time resources, the second subset of time resources being a sensing window for partial sensing.

5. The communication apparatus of claim 4, wherein the circuitry is further configured to determine a fourth plurality of time resources, the fourth plurality of time resources being a time frame for partial sensing resource sensing, wherein the second subset of time resources is an intersection of the fourth plurality of time resources and the second plurality of time resources.

~~6. The communication apparatus of claim 5, wherein the circuitry is further configured to synchronize the communication apparatus to a system timing, and wherein the third and/or fourth plurality of time resources are determined based on the system timing.~~

~~7. The communication apparatus of claim 5, wherein the fourth plurality of time resources is a same time frame as the third plurality of time resources.~~

~~8. The communication apparatus of claim 5, wherein the third and/or fourth plurality of time resources are determined based on formulas, calculation rules, or bitmaps, wherein the formulas, calculation rules, or bitmaps are defined by standardizations, base stations, regulators, or UE vendors.~~

~~9. The communication apparatus of claim 5, wherein the third and/or fourth plurality of time resources comprises continuous or discrete time slots which are either periodic or aperiodic.~~

~~10. The communication apparatus of claim 4, wherein the first subset of time resources is determined using formulas, calculation rules or bitmap indication from the first plurality of time resources, or by applying a coefficient value to the first plurality of time resources, the first coefficient being greater than 0 and less than 1; wherein the formulas, the calculation rules, bitmap indication or coefficient value are defined with reference to the reference time slot, and wherein the formulas, calculation rules, bitmap indication or coefficient value are set by standardizations, base stations, regulators, or UE vendors.~~

~~11. The communication apparatus of claim 4, wherein the second subset of time resources is determined using formulas, calculation rules or bitmap indication from the second plurality of time resources, or by applying a coefficient value to the first plurality of time resources, the first coefficient being greater than 0 and less than 1; wherein the formulas, the calculation rules, bitmap indication or coefficient value are defined with reference to the reference time slot, and wherein the formulas, calculation rules, bitmap indication or coefficient value are set by standardizations, base stations, regulators, or UE vendors.~~

12. The communication apparatus of claim 4, wherein the first subset of time resources and/or the second subset of time resources are determined based on priorities, congestion levels and/or CBR/CR, and wherein a maximum and/or minimum number of time slots of the first subset of time resources and the second subset of time resources are determined based on formulas, calculation rules, bitmaps, or a preconfigured list.

13. The communication apparatus of claim 4, wherein the first subset of time resources and/or the second subsets of time resources are different among the communication apparatus and another communication apparatus.

14. The communication apparatus of claim 4, wherein the first subset of time resources and/or the second subsets of time resources are different among the communication apparatus and another communication apparatus, even when the first plurality of time resources is same among the communication apparatus and the another communication apparatus.

15. The communication apparatus of claim 4, wherein the first subset of time resources and/or the second subsets of time resources in a first time slot are different from that in a second time slot.

16. The communication apparatus of claim 4 wherein the first subset of time resources and/or the second subsets of time resources of the communication apparatus are different from that of another communication apparatus, based on at least one of a UEID, a value indicated by a base station, a priority, a congestion level, a CBR/CR and UE type of the communication apparatus and/or the another communication apparatus.

17. The communication apparatus of claim 4, wherein the communication apparatus is active in the second subset of time resources and during the SL signal transmission in the selected portion in the first subset of

~~time resources, and inactive for other time resources in the first plurality of time resources and the second plurality of time resources.~~

~~18. A method comprising:~~

~~determining a first plurality of time resources for resource selection, a second plurality of time resources for resource sensing, and a first subset of time resources from the first plurality of time resources, the first subset of time resources being a selection window for partial sensing;~~

~~selecting a portion of the first subset of time resources; and~~

~~transmitting a sidelink (SL) signal in the selected portion of the first subset of time resources.~~

1. A communication apparatus comprising:

a receiver, which in operation, receives control information relating to a first subset of time resources used for a full sensing; and

circuitry, which in operation, performs a partial sensing at the first subset of time resources, which is determined based on the control information.

2. The communication apparatus of claim 1, wherein the first subset of time resources is discrete with a periodicity.

3. The communication apparatus of claim 1, wherein the first subset of time resources is every X slots from a reference slot.

4. The communication apparatus of claim 1, wherein the first subset of time resources is different from another communication apparatus.

5. The communication apparatus of claim 1, wherein the control information is transmitted by a RRC (radio resource control) signaling.

6. A communication method comprising:

receiving control information relating to a first subset of time resources used for a full sensing; and

performing a partial sensing at the first subset of time resources, which is determined based on the control information,

10. The communication method of claim 6, wherein the control information is transmitted by a RRC (radio resource control) signaling.

11. A base station comprising:

circuitry, which in operation, generates control information relating to a first subset of time resources used for a full sensing, the first subset being used for a partial sensing; and

a transmitter, which in operation, transmits the control information.

12. The base station of claim 11, wherein the first subset of time resources is discrete with a periodicity.

13. The base station of claim 11, wherein the first subset of time resources is every X slots from a reference slot.

14. The base station of claim 11, wherein the first subset of time resources is different from another communication apparatus.

15. The base station of claim 11, wherein the control information is transmitted by a RRC (radio resource control) signaling.

16. A communication method comprising:

generating control information relating to a first subset of time resources used for a full sensing, the first subset being used for a partial sensing; and

transmitting the control information.

17. The communication method of claim 16, wherein the first subset of time resources is discrete with a periodicity.

18. The communication method of claim 16, wherein the first subset of time resources is every X slots from a reference slot.

19. The communication method of claim 16, wherein the first subset of time resources is different from another communication apparatus.

20. The communication method of claim 16, wherein the control information is transmitted by a RRC (radio resource control) signaling.

21. An integrated circuit comprising:

reception circuitry, which in operation, controls of receiving control information relating to a first subset of time resources used for a full sensing; and

performing circuitry, which in operation, controls of performing a partial sensing at the first subset of time resources, which is determined based on the control information.

22. An integrated circuit comprising:

generation circuitry, which in operation, controls of generating control information relating to a first subset of time resources used for a full sensing, the first subset being used for a partial sensing; and

transmission circuitry, which in operation, controls of transmitting the control information.