CLAIMS

~~**WHAT IS CLAIMED IS:**~~

1. A method of wireless communication by a user equipment (UE), the method comprising:

receiving, from a network, first information associated with one or more repetitions of control information on a control channel;

determining a first schedule associated with the one or more repetitions of the control information on the control channel based on the first information;

receiving, from the network, at least one of the one or more repetitions of the control information on the control channel based on the first schedule~~,~~ the control information having an information element defining a search space configuration specific to the UE wherein the control information indicates a second schedule associated with a random access response (RAR) on a data channel; and receiving, from the network, the RAR on the data channel based on the second schedule.

~~receiving, from the network, the RAR on the data channel based on the second schedule.~~

2. The method of claim 1, wherein the first information indicates whether the one or more repetitions of the control information on the control channel is greater than one.

3. The method of claim 1, wherein the first information indicates each of the one or more repetitions of the control information on the control channel has at least one of a same payload, a same aggregation level, or a same set of frequency resources.

4. The method of claim 1, wherein the first information comprises a flag indicated by a search space information element (IE), and at least two of the one or more repetitions of the control information on the control channel are across adjacent slots per monitoring occasion.

5. The method of claim 1, wherein the first information comprises a number of symbols associated with the one or more repetitions of the control information on the control channel, and wherein a search space associated with the control channel comprises a number of symbols per monitoring occasion that is a multiple of a control resource set (CORESET) carrying the control information on the control channel, and at least two of the one or more repetitions of the control information on the control channel are across adjacent symbols per monitoring occasion.

6. The method of claim 1, wherein the first information indicates a start time and a number of the one or more repetitions of the control information on the control channel for one or more time windows that include each of the one or more repetitions of the control information on the control channel.

7.——The method of claim 6, wherein at least two of the one or more repetitions of the control information on the control channel included in the one or more time windows are across adjacent slots or adjacent symbols.

8.——The method of claim 1, wherein the first information is received via at least one of radio resource control (RRC) signaling, a media access control (MAC) control element (CE), or a downlink control information (DCI) message.

9.——The method of claim 1, wherein the first information is received on a first set of frequency resources that is different from a second set of frequency resources on which each of the one or more repetitions of the control information on the control channel is received.

10.——The method of claim 1, wherein the first information indicates one or more indices associated with at least one common monitoring occasion that includes the one or more repetitions of the control information on the control channel, and the first information further indicates a number of the one or more repetitions of the control information on the control channel included in at least one common monitoring occasion.

11.——The method of claim 10, wherein the at least one common monitoring occasion is associated with a respective schedule that is defined by a common search space configuration.

12.——The method of claim 11, wherein the common search space configuration is indicated in at least one of a system information block (SIB) or an information element (IE) associated with a configuration of common parameters associated with the control channel.

~~13. The method of claim 10, wherein the first information is indicated in at least one UE-specific information element (IE).~~

~~14.~~——13. The method of claim 10, wherein at least two of the one or more repetitions of the control information on the control channel during at least one common monitoring occasion are across one of adjacent slots or adjacent symbols.

~~15.~~——14. The method of claim 1, wherein the control channel comprises a physical downlink control channel (PDCCH), and the data channel comprises a physical downlink shared channel (PDSCH).

~~16.~~——15. A method of wireless communication by a base station, the method comprising:

——— determining, for a user equipment (UE), a first schedule associated with one or more repetitions of control information on a control channel;

——— sending, to the UE, first information indicating the first schedule; and

——— sending, to the UE, each of the one or more repetitions of the control information on the control channel based on the first schedule~~,~~ the control information having an information element defining a search space configuration specific to the UE wherein the control information indicates a second schedule associated with a random access response (RAR) on a data channel.

~~17.~~ 16. The method of claim ~~16~~15, further comprising:

——— sending, to the UE, the RAR on the data channel based on the second schedule associated with the RAR.

~~18.~~ 17. The method of claim ~~16~~15, further comprising:

———configuring a second base station for the UE, wherein the second base station is to send the RAR to the UE on the data channel based on the second schedule associated with the RAR.

~~19.~~ 18. The method of claim ~~16~~15, wherein a number of the one or more repetitions of the control information on the control channel is determined based on at least one of a random access channel (RACH) preamble received from the UE or a measurement report received from the UE.

~~20.~~ 19. The method of claim ~~16~~15, wherein the determining the first schedule associated with the one or more repetitions of the control information on the control channel comprises:

——— determining whether at least one value included in the measurement report satisfies at least one threshold; and

——— determining the number of the one or more repetitions of the control information on the control channel based on whether the at least one value included in the measurement report satisfies the at least one threshold.

~~21.~~ 20. The method of claim ~~16~~15, wherein the first information indicates whether a number of the one or more repetitions of the control information on the control channel is greater than one.

~~22.~~ 21. The method of claim ~~16~~15, wherein the first information indicates each of the one or more repetitions of the control information on the control channel has at least one of a same payload, a same aggregation level, or a same set of frequency resources.

~~23.~~ 22. The method of claim ~~16~~15, wherein the first information comprises a flag indicated by a search space information element (IE), and at least two of the one or more repetitions of the control information on the control channel are across adjacent slots per monitoring occasion.

~~24.~~ 23. The method of claim ~~16~~15, wherein the first information comprises a number of symbols associated with the one or more repetitions of the control information on the control channel, and wherein a search space associated with the control channel comprises a number of symbols per monitoring occasion that is a multiple of a control resource set (CORESET) carrying the control information on the control channel, and at least two of the one or more repetitions of the control information on the channel are across adjacent symbols per monitoring occasion.

~~25.~~ 24. The method of claim ~~16~~15, wherein the first information indicates a start time and a number of the one or more repetitions of the control information on the control channel for one or more time windows that include the one or more repetitions of the control information on the control channel.

~~26.~~ 25. The method of claim ~~25~~24, wherein at least two of the one or more repetitions of the control information on the control channel included in the one or more time windows are across one of adjacent slots or adjacent symbols.

~~27.~~ 26. The method of claim ~~16~~15, wherein the first information is sent via at least one of radio resource control (RRC) signaling, a media access control (MAC) control element (CE), or a downlink control information (DCI) message.

~~28.~~ 27. The method of claim ~~16~~15, wherein the first information is sent one a first set of frequency resources that is different from a second set of frequency resources on which the one or more repetitions of the control information on the control channel is sent.

~~29.~~ 28. The method of claim ~~16~~15, wherein the first information indicates one or more indices associated with at least one common monitoring occasion that includes the one or more repetitions of the control information on the control channel, and the first information further indicates a number of the one or more repetitions of the control information on the control channel included in at least one common monitoring occasion.

~~30.~~ 29. The method of claim ~~29~~28, wherein the at least one common monitoring occasion is associated with a respective schedule that is defined by a common search space configuration.

~~31. The method of claim~~ 30. The method of claim 29, wherein the common search space configuration is indicated by at least one of a system information block (SIB) or an information

element (IE) associated with a configuration of common parameters associated with the control channel.

~~32.~~ 31. The method of claim ~~29, wherein the first information is indicated in at least one UE-specific information element (IE).~~

~~33. The method of claim 29~~28, wherein at least two of the one or more repetitions of the control information on the control channel during at least one common monitoring occasion are across one of adjacent slots or adjacent symbols.

~~34.~~ 32. The method of claim ~~16~~15, wherein the control channel comprises a physical downlink control channel (PDCCH), and the data channel comprises a physical downlink shared channel (PDSCH).

~~35.~~ 33. An apparatus for wireless communication by a user equipment (UE), the apparatus comprising:

~~———~~ means for receiving, from a network, first information associated with one or more repetitions of control information on a control channel;

~~———~~ means for determining a first schedule associated with the one or more repetitions of the control information on the control channel based on the first information;

~~———~~ means for receiving, from the network, at least one of the one or more repetitions of the control information on the control channel based on the first schedule~~,~~ the control information having an information element defining a search space configuration specific to the UE wherein the control information indicates a second schedule associated with a random access response (RAR) on a data channel; and means for receiving, from the network, the RAR on the data channel based on the second schedule.

~~———— means for receiving, from the network, the RAR on the data channel based on the second schedule.~~

~~36.~~ 34. The apparatus of claim ~~35~~33, wherein the first information indicates whether the one or more repetitions of the control information on the control channel is greater than one.

~~37.~~ 35. The apparatus of claim ~~35~~33, wherein the first information indicates each of the one or more repetitions of the control information on the control channel has at least one of a same payload, a same aggregation level, or a same set of frequency resources.

~~38.~~ 36. The apparatus of claim ~~35~~33, wherein the first information comprises a flag indicated by a search space information element (IE), and at least two of the one or more repetitions of the control information on the control channel are across adjacent slots per monitoring occasion.

~~39.~~ 37. The apparatus of claim ~~35~~33, wherein the first information comprises a number of symbols associated with the one or more repetitions of the control information on the control channel, and wherein a search space associated with the control channel comprises a number of symbols per monitoring occasion that is a multiple of a control resource set (CORESET) carrying the control information on the control channel, and at least two of the one or more repetitions of the control information on the control channel are across adjacent symbols per monitoring occasion.

~~40.~~ 38. The apparatus of claim ~~35~~33, wherein the first information indicates a start time and a number of the one or more repetitions of the control information on the control channel for one or more time windows that include each of the one or more repetitions of the control information on the control channel.

~~41.~~ 39. The apparatus of claim ~~40~~38, wherein at least two of the one or more repetitions of the control information on the control channel included in the one or more time windows are across adjacent slots or adjacent symbols.

~~42.~~ 40. The apparatus of claim ~~35~~33, wherein the first information is received via at least one of radio resource control (RRC) signaling, a media access control (MAC) control element (CE), or a downlink control information (DCI) message.

~~43.~~ 41. The apparatus of claim ~~35~~33, wherein the first information is received on a first set of frequency resources that is different from a second set of frequency resources on which each of the one or more repetitions of the control information on the control channel is received.

~~44.~~ 42. The apparatus of claim ~~35~~33, wherein the first information indicates one or more indices associated with at least one common monitoring occasion that includes the one or more repetitions of the control information on the control channel, and the first information further indicates a number of the one or more repetitions of the control information on the control channel included in at least one common monitoring occasion.

~~45.~~ 43. The apparatus of claim ~~44~~42, wherein the at least one common monitoring occasion is associated with a respective schedule that is defined by a common search space configuration.

~~46.~~ ~~44.~~ The apparatus of claim ~~45~~43, wherein the common search space configuration is indicated in at least one of a system information block (SIB) or an information element (IE) associated with a configuration of common parameters associated with the control channel.

~~47.~~ ~~45.~~ The apparatus of claim ~~44, wherein the first information is indicated in at least one UE-specific information element (IE).~~

~~48. The apparatus of claim 44~~42, wherein at least two of the one or more repetitions of the control information on the control channel during at least one common monitoring occasion are across one of adjacent slots or adjacent symbols.

~~49.~~ ~~46.~~ The apparatus of claim ~~35~~33, wherein the control channel comprises a physical downlink control channel (PDCCH), and the data channel comprises a physical downlink shared channel (PDSCH).

~~50.~~ ~~47.~~ An apparatus for wireless communication by a base station, the apparatus comprising:

~~———~~ means for determining, for a user equipment (UE), a first schedule associated with one or more repetitions of control information on a control channel;

~~———~~ means for sending, to the UE, first information indicating the first schedule; and

~~———~~ means for sending, to the UE, each of the one or more repetitions of the control information on the control channel based on the first schedule~~,~~ the control information having an information element defining a search space configuration specific to the UE wherein the control information indicates a second schedule associated with a random access response (RAR) on a data channel.

~~51.~~ ~~48.~~ The apparatus of claim ~~50~~47, further comprising:

~~———~~ means for sending, to the UE, the RAR on the data channel based on the second schedule associated with the RAR.

~~52.~~ ~~49.~~ The apparatus of claim ~~50~~47, further comprising:

~~———~~means for configuring a second base station for the UE, wherein the second base station is to send the RAR to the UE on the data channel based on the second schedule associated with the RAR.

~~53.~~ ~~50.~~ The apparatus of claim ~~50~~47, wherein a number of the one or more repetitions of the control information on the control channel is determined based on at least one of a random

access channel (RACH) preamble received from the UE or a measurement report received from the UE.

~~54.~~ 51. The apparatus of claim ~~50~~47, wherein the means for determining the first schedule associated with the one or more repetitions of the control information on the control channel is configured to:

~~———~~ determine whether at least one value included in the measurement report satisfies at least one threshold; and

~~———~~ determine the number of the one or more repetitions of the control information on the control channel based on whether the at least one value included in the measurement report satisfies the at least one threshold.

~~55.~~ 52. The apparatus of claim ~~50~~47, wherein the first information indicates whether a number of the one or more repetitions of the control information on the control channel is greater than one.

~~56.~~ 53. The apparatus of claim ~~50~~47, wherein the first information indicates each of the one or more repetitions of the control information on the control channel has at least one of a same payload, a same aggregation level, or a same set of frequency resources.

~~57.~~ 54. The apparatus of claim ~~50~~47, wherein the first information comprises a flag indicated by a search space information element (IE), and at least two of the one or more repetitions of the control information on the control channel are across adjacent slots per monitoring occasion.

~~58.~~ 55. The apparatus of claim ~~50~~47, wherein the first information comprises a number of symbols associated with the one or more repetitions of the control information on the control channel, and wherein a search space associated with the control channel comprises a number of symbols per monitoring occasion that is a multiple of a control resource set (CORESET) carrying the control information on the control channel, and at least two of the one or more repetitions of the control information on the channel are across adjacent symbols per monitoring occasion.

~~59.~~ 56. The apparatus of claim ~~50~~47, wherein the first information indicates a start time and a number of the one or more repetitions of the control information on the control channel for one or more time windows that include the one or more repetitions of the control information on the control channel.

~~60.~~ 57. The apparatus of claim ~~59~~56, wherein at least two of the one or more repetitions of the control information on the control channel included in the one or more time windows are across one of adjacent slots or adjacent symbols.

~~61.~~ 58. The apparatus of claim ~~50~~47, wherein the first information is sent via at least one of radio resource control (RRC) signaling, a media access control (MAC) control element (CE), or a downlink control information (DCI) message.

~~62.~~ 59. The apparatus of claim ~~50~~47, wherein the first information is sent one a first set of frequency resources that is different from a second set of frequency resources on which the one or more repetitions of the control information on the control channel is sent.

~~63.~~ 60. The apparatus of claim ~~50~~47, wherein the first information indicates one or more indices associated with at least one common monitoring occasion that includes the one or more repetitions of the control information on the control channel, and the first information further indicates a number of the one or more repetitions of the control information on the control channel included in at least one common monitoring occasion.

~~64.~~ 61. The apparatus of claim ~~63~~60, wherein the at least one common monitoring occasion is associated with a respective schedule that is defined by a common search space configuration.

~~65.~~ 62. The apparatus of claim ~~64~~61, wherein the common search space configuration is indicated by at least one of a system information block (SIB) or an information element (IE) associated with a configuration of common parameters associated with the control channel.

~~66.~~ 63. The apparatus of claim ~~63, wherein the first information is indicated in at least one UE-specific information element (IE).~~

~~67. The apparatus of claim 63~~60, wherein at least two of the one or more repetitions of the control information on the control channel during at least one common monitoring occasion are across one of adjacent slots or adjacent symbols.

~~68.~~ 64. The apparatus of claim ~~50~~47, wherein the control channel comprises a physical downlink control channel (PDCCH), and the data channel comprises a physical downlink shared channel (PDSCH).

~~69.~~ 65. An apparatus for wireless communication by a user equipment (UE), the apparatus comprising:

a memory; and

at least one processor coupled to the memory and configured to:

receive, from a network, first information associated with one or more repetitions of control information on a control channel;

determine a first schedule associated with the one or more repetitions of the control information on the control channel based on the first information;

receive, from the network, at least one of the one or more repetitions of the control information on the control channel based on the first schedule, the control information having an information element defining a search space configuration specific to the UE wherein the control information indicates a second schedule associated with a random access response (RAR) on a data channel; and receive, from the network, the RAR on the data channel based on the second schedule.

receive, from the network, the RAR on the data channel based on the second schedule.

66. The apparatus of claim 65, wherein the first information indicates whether the one or more repetitions of the control information on the control channel is greater than one.

67. The apparatus of claim 65, wherein the first information indicates each of the one or more repetitions of the control information on the control channel has at least one of a same payload, a same aggregation level, or a same set of frequency resources.

68. The apparatus of claim 65, wherein the first information comprises a flag indicated by a search space information element (IE), and at least two of the one or more repetitions of the control information on the control channel are across adjacent slots per monitoring occasion.

69. The apparatus of claim 65, wherein the first information comprises a number of symbols associated with the one or more repetitions of the control information on the control channel, and wherein a search space associated with the control channel comprises a number of symbols per monitoring occasion that is a multiple of a control resource set (CORESET) carrying the control information on the control channel, and at least two of the one or more repetitions of the control information on the control channel are across adjacent symbols per monitoring occasion.

70. The apparatus of claim 65, wherein the first information indicates a start time and a number of the one or more repetitions of the control information on the control channel for one or more time windows that include each of the one or more repetitions of the control information on the control channel.

~~75.~~ 71. The apparatus of claim ~~74~~70, wherein at least two of the one or more repetitions of the control information on the control channel included in the one or more time windows are across adjacent slots or adjacent symbols.

~~76.~~ 72. The apparatus of claim ~~69~~65, wherein the first information is received via at least one of radio resource control (RRC) signaling, a media access control (MAC) control element (CE), or a downlink control information (DCI) message.

~~77.~~ 73. The apparatus of claim ~~69~~65, wherein the first information is received on a first set of frequency resources that is different from a second set of frequency resources on which each of the one or more repetitions of the control information on the control channel is received.

~~78.~~ 74. The apparatus of claim ~~69~~65, wherein the first information indicates one or more indices associated with at least one common monitoring occasion that includes the one or more repetitions of the control information on the control channel, and the first information further indicates a number of the one or more repetitions of the control information on the control channel included in at least one common monitoring occasion.

~~79.~~ 75. The apparatus of claim ~~78~~74, wherein the at least one common monitoring occasion is associated with a respective schedule that is defined by a common search space configuration.

~~80.~~ 76. The apparatus of claim ~~79~~75, wherein the common search space configuration is indicated in at least one of a system information block (SIB) or an information element (IE) associated with a configuration of common parameters associated with the control channel.

~~81.~~ 77. The apparatus of claim ~~78, wherein the first information is indicated in at least one UE-specific information element (IE).~~

~~82. The apparatus of claim 78~~74, wherein at least two of the one or more repetitions of the control information on the control channel during at least one common monitoring occasion are across one of adjacent slots or adjacent symbols.

~~83.~~ 78. The apparatus of claim ~~69~~65, wherein the control channel comprises a physical downlink control channel (PDCCH), and the data channel comprises a physical downlink shared channel (PDSCH).

~~84.~~ 79. An apparatus for wireless communication by a user equipment (UE), the apparatus comprising:

~~———~~ a memory; and

at least one processor coupled to the memory and configured to:

~~————————~~ determine, for a user equipment (UE), a first schedule associated with one or more repetitions of control information on a control channel;

~~————————~~ send, to the UE, first information indicating the first schedule; and

~~————————~~ send, to the UE, each of the one or more repetitions of the control information on the control channel based on the first schedule~~,~~ the control information having an information element defining a search space configuration specific to the UE wherein the control information indicates a second schedule associated with a random access response (RAR) on a data channel.

~~85.~~ 80. The apparatus of claim ~~84~~79, wherein the at least one processor is further configured to:

~~———~~ send, to the UE, the RAR on the data channel based on the second schedule associated with the RAR.

~~86.~~ 81. The apparatus of claim ~~84~~79, wherein the at least one processor is further configured to:

~~———~~ configure a second base station for the UE, wherein the second base station is to send the RAR to the UE on the data channel based on the second schedule associated with the RAR.

~~87.~~ 82. The apparatus of claim ~~84~~79, wherein a number of the one or more repetitions of the control information on the control channel is determined based on at least one of a random access channel (RACH) preamble received from the UE or a measurement report received from the UE.

~~88.~~ 83. The apparatus of claim ~~84~~79, wherein the determination of the first schedule associated with the one or more repetitions of the control information on the control channel comprises to:

~~———~~ determine whether at least one value included in the measurement report satisfies at least one threshold; and

~~———~~ determine the number of the one or more repetitions of the control information on the control channel based on whether the at least one value included in the measurement report satisfies the at least one threshold.

~~89.~~ 84. The apparatus of claim ~~84~~79, wherein the first information indicates whether a number of the one or more repetitions of the control information on the control channel is greater than one.

~~90.~~ 85. The apparatus of claim ~~84~~79, wherein the first information indicates each of the one or more repetitions of the control information on the control channel has at least one of a same payload, a same aggregation level, or a same set of frequency resources.

~~91.~~ 86. The apparatus of claim ~~84~~79, wherein the first information comprises a flag indicated by a search space information element (IE), and at least two of the one or more repetitions of the control information on the control channel are across adjacent slots per monitoring occasion.

~~92.~~ 87. The apparatus of claim ~~84~~79, wherein the first information comprises a number of symbols associated with the one or more repetitions of the control information on the control channel, and wherein a search space associated with the control channel comprises a number of symbols per monitoring occasion that is a multiple of a control resource set (CORESET) carrying the control information on the control channel, and at least two of the one or more repetitions of the control information on the channel are across adjacent symbols per monitoring occasion.

~~93.~~ 88. The apparatus of claim ~~84~~79, wherein the first information indicates a start time and a number of the one or more repetitions of the control information on the control channel for one or more time windows that include the one or more repetitions of the control information on the control channel.

~~94.~~ 89. The apparatus of claim ~~93~~88, wherein at least two of the one or more repetitions of the control information on the control channel included in the one or more time windows are across one of adjacent slots or adjacent symbols.

~~95.~~ 90. The apparatus of claim ~~84~~79, wherein the first information is sent via at least one of radio resource control (RRC) signaling, a media access control (MAC) control element (CE), or a downlink control information (DCI) message.

~~96.~~ 91. The apparatus of claim ~~84~~79, wherein the first information is sent one a first set of frequency resources that is different from a second set of frequency resources on which the one or more repetitions of the control information on the control channel is sent.

~~97.~~ 92. The apparatus of claim ~~84~~79, wherein the first information indicates one or more indices associated with at least one common monitoring occasion that includes the one or more

repetitions of the control information on the control channel, and the first information further indicates a number of the one or more repetitions of the control information on the control channel included in at least one common monitoring occasion.

~~98.~~ 93. The apparatus of claim ~~97~~92, wherein the at least one common monitoring occasion is associated with a respective schedule that is defined by a common search space configuration.

~~99.~~ 94. The apparatus of claim ~~98~~93, wherein the common search space configuration is indicated by at least one of a system information block (SIB) or an information element (IE) associated with a configuration of common parameters associated with the control channel.

~~100.~~ 95. The apparatus of claim ~~97, wherein the first information is indicated in at least one UE-specific information element (IE).~~

~~101. The apparatus of claim 97~~92, wherein at least two of the one or more repetitions of the control information on the control channel during at least one common monitoring occasion are across one of adjacent slots or adjacent symbols.

~~102.~~ 96. The apparatus of claim ~~84~~79, wherein the control channel comprises a physical downlink control channel (PDCCH), and the data channel comprises a physical downlink shared channel (PDSCH).

~~103. A~~97. A non-transitory computer-readable medium storing computer-executable code for wireless communication by a user equipment (UE), comprising code to:

receive, from a network, first information associated with one or more repetitions of control information on a control channel;

~~———~~ determine a first schedule associated with the one or more repetitions of the control information on the control channel based on the first information;

~~———~~ receive, from the network, at least one of the one or more repetitions of the control information on the control channel based on the first schedule~~,~~ the control information having an information element defining a search space configuration specific to the UE wherein the control information indicates a second schedule associated with a random access response (RAR) on a data channel; and receive, from the network, the RAR on the data channel based on the second schedule.

~~———~~ ~~receive, from the network, the RAR on the data channel based on the second schedule.~~

~~104. A~~98. A non-transitory computer-readable medium storing computer-executable code for wireless communication by a base station, comprising code to:

determine, for a user equipment (UE), a first schedule associated with one or more repetitions of control information on a control channel;

~~———~~ send, to the UE, first information indicating the first schedule; and

~~———~~ send, to the UE, each of the one or more repetitions of the control information on the control channel based on the first schedule~~,~~ the control information having an information element defining a search space configuration specific to the UE wherein the control information indicates a second schedule associated with a random access response (RAR) on a data channel.