

CLAIMS

1. A method for wireless communication, comprising: receiving, from a base station, control signaling that indicates configuration information corresponding to an excluded transmission time interval (TTI); monitoring a control channel for a grant of resources of a communication channel over a plurality of aggregated TTIs; identifying a location of the excluded TTI within the plurality of aggregated TTIs based at least in part on the control signaling; and communicating with the base station via the resources of the communication channel over at least a subset of the plurality of aggregated TTIs other than the excluded TTI based at least in part on the grant and the identified location of the excluded TTI.
2. The method of claim 1, further comprising: maintaining a TTI count of communicated TTIs of the plurality of aggregated TTIs based at least in part on the excluded TTI in the TTI count.
3. The method of claim 1, further comprising: adjusting an end TTI for the plurality of aggregated TTIs based at least in part on the location of the excluded TTI.
4. The method of claim 1, further comprising: adjusting a TTI number for the plurality of aggregated TTIs based at least in part on the location of the excluded TTI.
5. The method of claim 1, further comprising: processing a TTI reassignment indication reassigning at least a portion of a first TTI of the plurality of aggregated TTIs.
6. The method of claim 5, further comprising: communicating an acknowledgment of the TTI reassignment indication prior to a beginning TTI of the plurality of aggregated TTIs.
7. The method of claim 5, further comprising: determining that the at least the portion of the first TTI is being punctured.
8. The method of claim 5, further comprising: adjusting TTIs included in the plurality of aggregated TTIs based at least in part on the TTI reassignment indication.
9. The method of claim 8, wherein adjusting the TTIs comprises: determining a location of the first TTI within the plurality of aggregated TTIs; and shifting a subset of the plurality of aggregated TTIs, that occurs after the first TTI, back by at least one TTI based at least in part on the determined location.
10. The method of claim 8, wherein communicating via the resources of the communication channel comprises: identifying a first plurality of symbols of the first TTI associated with a synchronization signal to be transmitted via a first transmit beam and a second plurality of symbols of the first TTI to be transmitted via a second transmit beam; and receiving a first portion of a data transmission of the first TTI in the first plurality of symbols via a first receive

beam associated with the first transmit beam and a second portion of the data transmission of the first TTI in the second plurality of symbols via a second receive beam associated with the second transmit beam.

11. The method of claim 8, further comprising: determining that a location of an acknowledgment TTI has been changed to an updated location based at least in part on adjusting the TTIs included in the plurality of aggregated TTIs; and communicating a merged feedback message that includes channel state information (CSI) and acknowledgement data within the updated location.

12. The method of claim 11, wherein determining that the location of the acknowledgment TTI has changed comprises: determining that the updated location of the acknowledgment TTI is in a same TTI as a TTI scheduled to transport the CSI.

13. The method of claim 11, wherein determining that the location of the acknowledgment TTI has changed comprises: determining that the CSI is scheduled to be transmitted within one of the adjusted plurality of aggregated TTIs.

14. The method of claim 13, further comprising: determining that the TTI reassignment indication is received after a beginning of a multi-TTI acknowledgment transmission; and cancelling a remainder of the multi-TTI acknowledgment transmission.

15. The method of claim 13, further comprising: determining that the TTI reassignment indication is received after a beginning of transmission of a multi-TTI acknowledgment transmission, wherein the merged feedback message comprises at least a portion of the multi-TTI acknowledgment transmission.

16. The method of claim 5, further comprising: determining that a location of an acknowledgment TTI has changed to an updated location that overlaps with a TTI in which channel state information (CSI) is scheduled for transmission; determining that the TTI reassignment indication is received after a beginning of transmission of a multi-TTI acknowledgment transmission; and transmitting the CSI and at least a portion of the multi-TTI acknowledgment transmission within the updated location of the acknowledgment TTI.

17. The method of claim 1, wherein the grant comprises a bit sequence identifying the plurality of aggregated TTIs.

18. The method of claim 1, wherein the grant comprises an index that corresponds to one of a plurality of configurations for the plurality of aggregated TTIs.

19. The method of claim 1, wherein at least some of the plurality of aggregated TTIs are non-contiguous in time.

20. The method of claim 1, wherein at least a first symbol of the excluded TTI is configured for communication in an opposite link direction than a link direction of at least some of the plurality of aggregated TTIs.

21. A method for wireless communication at a base station, comprising: transmitting, from the base station and to a user equipment (UE), control signaling that indicates configuration information corresponding to an excluded aggregated transmission time interval (TTI); transmitting, to the UE, a grant of resources of a communication channel over a plurality of TTIs; identifying a location of the excluded TTI within the plurality of aggregated TTIs based at least in part on the control signaling; and communicating with the UE via the resources of the communication channel over at least a subset of the plurality of aggregated TTIs other than the excluded TTI based at least in part on the grant and the location of the excluded TTI.

22. The method of claim 21, further comprising: adjusting an end TTI for the plurality of aggregated TTIs based at least in part on the location of the excluded TTI.

23. The method of claim 21, further comprising: adjusting a TTI number for the plurality of aggregated TTIs based at least in part on the location of the excluded TTI.

24. The method of claim 21, further comprising: generating a TTI reassignment indication reassigning at least a portion of a first TTI of the plurality of aggregated TTIs.

25. The method of claim 24, further comprising: adjusting TTIs included in the plurality of aggregated TTIs based at least in part on the TTI reassignment indication.

26. The method of claim 25, wherein adjusting the TTIs comprises: determining a location of the first TTI within the plurality of aggregated TTIs; and shifting a subset of the plurality of aggregated TTIs, that occurs after the first TTI, back by at least one TTI based at least in part on the determined location.

27. The method of claim 25, further comprising: identifying a first plurality of symbols of the first TTI associated with a synchronization signal to be transmitted via a first transmit beam and a second plurality of symbols of the first TTI to be transmitted via a second transmit beam; and transmitting a first portion of a data transmission of the first TTI in the first plurality of symbols via the first transmit beam and a second portion of the data transmission of the first TTI in the second plurality of symbols via the second transmit beam.

28. The method of claim 25, further comprising: receiving a merged feedback message that includes channel state information (CSI) and acknowledgement data.

29. The method of claim 24, wherein generating the TTI reassignment indication comprises: generating the TTI reassignment indication based at least in part on determining that a capability of the UE satisfies a threshold; and transmitting the TTI reassignment indication to the UE.

30. The method of claim 29, wherein determining that the capability of the UE satisfies the threshold comprises: determining that a response time of the UE satisfies the threshold.
31. The method of claim 24, further comprising: receiving an acknowledgment of the TTI reassignment indication prior to a beginning TTI of the plurality of aggregated TTIs.
32. The method of claim 24, further comprising: communicating a transport block size that excludes the first TTI from a calculation of the transport block size.
33. The method of claim 24, further comprising: determining that the at least the portion of the first TTI is being punctured.
34. The method of claim 21, wherein the grant comprises a bit sequence identifying the plurality of aggregated TTIs.
35. The method of claim 21, wherein the grant comprises an index that corresponds to one of a plurality of configurations for the plurality of aggregated TTIs.
36. The method of claim 21, wherein at least some of the plurality of aggregated TTIs are non-contiguous in time.
37. An apparatus for wireless communication, comprising: a processor, memory in electronic communication with the processor; and instructions stored in the memory and operable, when executed by the processor, to cause the apparatus to: receive, from a base station, control signaling that indicates configuration information corresponding to an excluded transmission time interval (TTI); monitor a control channel for a grant of resources of a communication channel over a plurality of aggregated TTIs; identify a location of the excluded TTI within the plurality of aggregated TTIs based at least in part on the control signaling; and communicate with the base station via the resources of the communication channel over at least a subset of the plurality of aggregated TTIs other than the excluded TTI based at least in part on the grant and the identified location of the excluded TTI.
38. The apparatus of claim 37, wherein the instructions are further executable by the processor to: maintain a TTI count of communicated TTIs of the plurality of aggregated TTIs based at least in part on the excluded TTI in the TTI count.
39. The apparatus of claim 37, wherein the instructions are further executable by the processor to: adjust an end TTI for the plurality of aggregated TTIs based at least in part on the location of the excluded TTI.
40. The apparatus of claim 37, wherein the instructions are further executable by the processor to: adjust a TTI number for the plurality of aggregated TTIs based at least in part on the location

of the excluded TTI.

41. The apparatus of claim 37, wherein the instructions are further executable by the processor to: process a TTI reassignment indication reassigning at least a portion of a first TTI of the plurality of aggregated TTIs.

42. The apparatus of claim 41, wherein the instructions are further executable by the processor to: communicate an acknowledgment of the TTI reassignment indication prior to a beginning TTI of the plurality of aggregated TTIs.

43. The apparatus of claim 41, wherein the instructions are further executable by the processor to: determine that the at least the portion of the first TTI is being punctured.

44. The apparatus of claim 41, wherein the instructions are further executable by the processor to: adjust TTIs included in the plurality of aggregated TTIs based at least in part on the TTI reassignment indication.

45. The apparatus of claim 44, wherein adjusting the TTIs comprises instructions further executable to: determine a location of the first TTI within the plurality of aggregated TTIs; and shift a subset of the plurality of aggregated TTIs, that occurs after the first TTI, back by at least one TTI based at least in part on the determined location.

46. The apparatus of claim 44, wherein communicating via the resources of the shared channel comprises instructions further executable to: identify a first plurality of symbols of the first TTI associated with a synchronization signal to be transmitted via a first transmit beam and a second plurality of symbols of the first TTI to be transmitted via a second transmit beam; and receive a first portion of a data transmission of the first TTI in the first plurality of symbols via a first receive beam associated with the first transmit beam and a second portion of the data transmission of the first TTI in the second plurality of symbols via a second receive beam associated with the second transmit beam.

47. The apparatus of claim 44, wherein the instructions are further executable by the processor to: determine that a location of an acknowledgment TTI has been changed to an updated location based at least in part on adjusting the TTIs included in the plurality of aggregated TTIs; and communicate a merged feedback message that includes channel state information (CSI) and acknowledgement data within the updated location.

48. The apparatus of claim 47, wherein determining that the location of the acknowledgment TTI has changed comprises instructions further executable to: determine that the updated location of the acknowledgment TTI is in a same TTI as a TTI scheduled to transport the CSI.

49. The apparatus of claim 47, wherein determining that the location of the acknowledgment TTI has changed comprises instructions further executable to: determine that the CSI is scheduled to

be transmitted within one of the adjusted plurality of aggregated TTIs.

50. The apparatus of claim 49, wherein the instructions are further executable by the processor to: determine that the TTI reassignment indication is received after a beginning of a multi-TTI acknowledgment transmission; and cancel a remainder of the multi-TTI acknowledgment transmission.

51. The apparatus of claim 49, wherein the instructions are further executable by the processor to: determine that the TTI reassignment indication is received after a beginning of transmission of a multi-TTI acknowledgment transmission, wherein the merged feedback message comprises at least a portion of the multi-TTI acknowledgment transmission.

52. The apparatus of claim 41, wherein the instructions are further executable by the processor to: determine that a location of an acknowledgment TTI has changed to an updated location that overlaps with a TTI in which channel state information (CSI) is scheduled for transmission; determine that the TTI reassignment indication is received after a beginning of transmission of a multi-TTI acknowledgment transmission; and transmit the CSI and at least a portion of the multi-TTI acknowledgment transmission within the updated location of the acknowledgment TTI.

53. The apparatus of claim 37, wherein the grant comprises a bit sequence identifying the plurality of aggregated TTIs.

54. The apparatus of claim 37, wherein the grant comprises an index that corresponds to one of a plurality of configurations for the plurality of aggregated TTIs.

55. The apparatus of claim 37, wherein at least some of the plurality of aggregated TTIs are non-contiguous in time.

56. The apparatus of claim 37, wherein at least a first symbol of the excluded TTI is configured for communication in an opposite link direction than a link direction of at least some of the plurality of aggregated TTIs.

57. An apparatus for wireless communication at a base station, comprising: a processor, memory in electronic communication with the processor; and instructions stored in the memory and operable, when executed by the processor, to cause the apparatus to: transmit, from the base station and to a user equipment (UE), control signaling that indicates configuration information corresponding to an excluded aggregated transmission time interval (TTI); transmit, to the UE, a grant of resources of a communication channel over a plurality of aggregated TTIs; identify a location of the excluded TTI within the plurality of aggregated TTIs based at least in part on the control signaling; and communicate with the UE via the resources of the communication channel over at least a subset of the plurality of aggregated TTIs other than the excluded TTI based at least in part on the grant and the location of the excluded TTI.

58. The apparatus of claim 57, wherein the instructions are further executable by the processor to: adjust an end TTI for the plurality of aggregated TTIs based at least in part on the location of the excluded TTI.

59. The apparatus of claim 57, wherein the instructions are further executable by the processor to: adjust a TTI number for the plurality of aggregated TTIs based at least in part on the location of the excluded TTI.

60. The apparatus of claim 57, wherein the instructions are further executable by the processor to: generate a TTI reassignment indication reassigning at least a portion of a first TTI of the plurality of aggregated TTIs.

61. The apparatus of claim 60, wherein the instructions are further executable by the processor to: adjust TTIs included in the plurality of aggregated TTIs based at least in part on the TTI reassignment indication.

62. The apparatus of claim 61, wherein adjusting the TTIs comprises instructions further executable to: determine a location of the first TTI within the plurality of aggregated TTIs; and shift a subset of the plurality of aggregated TTIs, that occurs after the first TTI, back by at least one TTI based at least in part on the determined location.

63. The apparatus of claim 61, wherein the instructions are further executable by the processor to: identify a first plurality of symbols of the first TTI associated with a synchronization signal to be transmitted via a first transmit beam and a second plurality of symbols of the first TTI to be transmitted via a second transmit beam; and transmit a first portion of a data transmission of the first TTI in the first plurality of symbols via the first transmit beam and a second portion of the data transmission of the first TTI in the second plurality of symbols via the second transmit beam.

64. The apparatus of claim 61, wherein the instructions are further executable by the processor to: receive a merged feedback message that includes channel state information (CSI) and acknowledgement data.

65. The apparatus of claim 60, wherein generating the TTI reassignment indication comprises instructions further executable to: generate the TTI reassignment indication based at least in part on determining that a capability of the UE satisfies a threshold; and transmit the TTI reassignment indication to the UE.

66. The apparatus of claim 65, wherein determining that the capability of the UE satisfies the threshold comprises instructions further executable to: determine that a response time of the UE satisfies the threshold.

67. The apparatus of claim 60, wherein the instructions are further executable by the processor

to: receive an acknowledgment of the TTI reassignment indication prior to a beginning TTI of the plurality of aggregated TTIs.

68. The apparatus of claim 60, wherein the instructions are further executable by the processor to: communicate a transport block size that excludes the first TTI from a calculation of the transport block size.

69. The apparatus of claim 60, wherein the instructions are further executable by the processor to: determine that the at least the portion of the first TTI is being punctured.

70. The apparatus of claim 57, wherein the grant comprises a bit sequence identifying the plurality of aggregated TTIs.

71. The apparatus of claim 57, wherein the grant comprises an index that corresponds to one of a plurality of configurations for the plurality of aggregated TTIs.

72. The apparatus of claim 57, wherein at least some of the plurality of aggregated TTIs are non-contiguous in time.