CLAIMS

1. A method of wireless communication, comprising: communicating, by a first wireless communication device with a second wireless communication device, a configuration indicating a first set of Ultra-Reliable Low-Latency Communication (URLLC) resources for transmission in an unlicensed frequency band and a second set of URLLC resources for transmission in a licensed frequency band; communicating, by the first wireless communication device with the second wireless communication device in the unlicensed frequency band, a first communication signal based on the configuration; and communicating, by the first wireless communication device with the second wireless communication device in the licensed frequency band, a second communication signal based on at least one of a channel status of the unlicensed frequency band or a transmission parameter associated with at least one of the first communication signal or the second communication signal.

2. The method of claim 1, comprising: performing, by the first wireless communication device, a listen-before-talk (LBT) in the unlicensed frequency band, wherein the channel status is dependent on a result of the LBT.

3. The method of claim 2, wherein communicating the second communication signal includes if the LBT results in a fail, communicating in the licensed frequency band, the second communication signal, the method further comprising: if the LBT results in a pass, communicating in the unlicensed frequency band, a third communication signal based on the configuration.

4. The method of claim 1, wherein the transmission parameter is associated with a Hybrid Automatic Repeat Request (HARQ) timeline.

5. The method of claim 1, wherein communicating the first communication signal includes communicating the first communication signal within a first TXOP, the method further comprising: determining, by the first wireless communication device, whether the second communication signal is transmittable within the first TXOP.

6. The method of claim 5, wherein communicating the second communication signal includes if the second communication signal is not transmittable within the first TXOP, communicating in the licensed frequency band, the second communication signal.

7. The method of claim 5, wherein the first communication signal includes downlink (DL) data, and the second communication signal includes an ACK/NACK for the DL data.

8. The method of claim 1, comprising: communicating, by the first wireless communication device with the second wireless communication device, an indication to utilize the unlicensed frequency band or the licensed frequency band.

9. The method of claim 8, wherein the indication is based on a selection of one of the unlicensed frequency band or the licensed frequency band by the first wireless communication device.

10. The method of claim 8, comprising: communicating, by the first wireless communication device to the second wireless communication device, a DL grant for a DL data transmission, the DL grant including a downlink control information (DCI) field providing the indication.

11. The method of claim 1, comprising: scheduling, by the first wireless communication device to the second wireless communication device, the second communication signal for transmission in the unlicensed frequency band; and in response to a failure of transmission of the second communication signal in the unlicensed frequency band, scheduling the second communication signal for transmission in the licensed frequency band.

12. The method of claim 1, comprising: detecting, by the first wireless communication device, a failure of a DL channel indication, wherein communicating the second communication signal includes in response to detection of the failure, communicating in the licensed frequency band, the second communication signal.

13. The method of claim 1, wherein the first set of URLLC resources is a physical uplink control channel (PUCCH) resource, and the second resource is a PUCCH resource.

14. The method of claim 1, comprising: communicating, by the first wireless communication device with a third wireless communication device, a configuration indicating the first set of URLLC in the unlicensed frequency band.

15. An apparatus comprising: a transceiver configured to: communicate, by a first wireless communication device with a second wireless communication device, a configuration indicating a first set of Ultra-Reliable Low-Latency Communication (URLLC) resources for transmission in an unlicensed frequency band and a second set of URLLC resources for transmission in a licensed frequency band; communicate, by the first wireless communication device with the second wireless communication device in the unlicensed frequency band, a first communication signal based on the configuration; and communicate, by the first wireless communication device with the second wireless communication device in the licensed frequency band, a second communication signal based on at least one of a channel status of the unlicensed frequency band or a transmission parameter associated with at least one of the first communication signal or the second communication signal.

16. The apparatus of claim 15, wherein the first set of URLLC resources is a physical uplink control channel (PUCCH) resource, and the second set of URLLC resources is a UL resource.

17. The apparatus of claim 15, wherein the first wireless communication device is a base station (BS), and the second wireless communication device is a user equipment (UE).

18. The apparatus of claim 15, wherein the first wireless communication device is a UE, and the second wireless communication device is a BS.

19. The apparatus of claim 15, wherein the second communication signal includes UL information.

20. The apparatus of claim 19, wherein the UL information includes UL data.

21. The apparatus of claim 19, wherein the UL information includes uplink control information (UCI).

22. The apparatus of claim 21, wherein the UCI includes at least one of an ACK/NACK, channel state information (CSI), or a scheduling request (SR).

23. The apparatus of claim 15, comprising: a processor configured to: perform, by the first wireless communication device, a LBT in the unlicensed frequency band, wherein the channel status is dependent on a result of the LBT, wherein if the LBT results in a fail, the transceiver communicates in the licensed frequency band, the second communication signal, and wherein if the LBT results in a pass, the transceiver communicates in the unlicensed frequency band, a third communication signal based on the configuration.

24. The apparatus of claim 15, wherein the transceiver communicates the first communication signal within a first TXOP, the apparatus further comprising: a processor configured to: determine, by the first wireless communication device, whether the second communication signal is transmittable within the first TXOP, wherein if the second communication signal is not transmittable within the first TXOP, the transceiver communicates in the licensed frequency band, the second communication signal.

25. The apparatus of claim 24, wherein the first communication signal includes downlink (DL) data, and the second communication signal includes an ACK/NACK for the DL data.

26. The apparatus of claim 24, wherein the determination of whether the second communication signal is transmittable within the first TXOP is based on a Hybrid Automatic Repeat Request (HARQ) timeline.

27. The apparatus of claim 15, comprising: a processor configured to: configure multiple resources on the unlicensed frequency band and the licensed frequency band.

28. The apparatus of claim 15, comprising: a processor configured to: determine to utilize the unlicensed frequency band for PUCCH transmission, wherein in response to a determination to utilize the unlicensed frequency band for PUCCH transmission, the transceiver transmits an indication in the licensed frequency band after the PUCCH transmission has completed.

29. The apparatus of claim 15, wherein the first and second set of URLLC resources are PUCCH resources.

30. The apparatus of claim 15, wherein the transceiver communicates with a third wireless communication device, a configuration indicating the first set of URLLC resources in the unlicensed frequency band.

31. A non-transitory computer-readable medium having program code recorded thereon, the program code comprising: code for causing a first wireless communication device to communicate, with a second wireless communication device, a configuration indicating a first set of Ultra-Reliable Low-Latency Communication (URLLC) resources for transmission in an unlicensed frequency band and a second set of URLLC resources for transmission in a licensed frequency band; code for causing the first wireless communication device to communicate, with the second wireless communication device in the unlicensed frequency

band, a first communication signal based on the configuration; and code for causing the first wireless communication device to communicate, with the second wireless communication device in the licensed frequency band, a second communication signal based on at least one of a channel status of the unlicensed frequency band or a transmission parameter associated with at least one of the first communication signal or the second communication signal.

32. The non-transitory computer-readable medium of claim 31, wherein the first set of URLLC resources is a physical uplink control channel (PUCCH) resource, and the second set of URLLC resources is a PUCCH resource.

33. The non-transitory computer-readable medium of claim 31, comprising: code for causing the first wireless communication device to communicate, with a third wireless communication device, a configuration indicating the first set of URLLC resources in the unlicensed frequency band.

34. The non-transitory computer-readable medium of claim 31, comprising: code for causing the first wireless communication device to communicate, with the second wireless communication device in the unlicensed frequency band, the first communication signal in a first transmission opportunity (TXOP); and code for causing the first wireless communication device to determine whether the second communication signal is transmittable within the first TXOP.

35. The non-transitory computer-readable medium of claim 31, wherein the second communication signal includes UL information, and wherein the UL information includes at least one of UL data or uplink control information (UCI).

36. The non-transitory computer-readable medium of claim 31, comprising: code for causing the first wireless communication device to configure multiple resources on the unlicensed frequency band and the licensed frequency band.