

CLAIMS

1. A method of wireless communication, comprising: determining that data scheduled for transmission using a Time-Division Duplex, TDD, band over a TDD subframe (300) includes Ultra-Reliable Low-Latency Communications, URLLC, data; and utilizing, in response to the determining, a URLLC subframe (400) configuration for the TDD subframe, wherein the URLLC subframe configuration includes a plurality of downlink intervals (401, 404) and a plurality of uplink intervals (402, 405); transmitting to a wireless apparatus at least a portion of the URLLC data over the TDD subframe, having a URLLC subframe configuration, during the plurality of downlink intervals; and receiving an acknowledgement from the wireless apparatus, in response to the transmitted at least a portion of the URLLC data, over a Frequency-Division Duplex, FDD, band.
2. The method of claim 1, wherein the URLLC subframe configuration further includes at least one control channel interval, and wherein the at least one control channel interval of the URLLC subframe configuration is aligned with a control channel interval of a nominal TDD subframe of a neighboring cell.
3. The method of claim 1, further comprising: determining a desired latency for the transmission of the URLLC data; and adjusting, based on the desired latency, a transmission time interval, TTI, for the URLLC subframe configuration.
4. The method of claim 3, wherein the adjusting includes adjusting the TTI of the URLLC subframe configuration to be less than a DL interval of the plurality of DL intervals or less than a UL interval of the plurality of UL intervals of the URLLC subframe configuration.
5. The method of claim 1, further comprising: determining a traffic load requirement for the transmission of the URLLC data; and configuring a ratio of the plurality of downlink intervals to the plurality of downlink intervals of the URLLC subframe configuration to meet the determined traffic load requirement.

6. The method of claim 5, wherein the traffic load requirement of the transmission of the URLLC data indicates an asymmetric downlink transmission to uplink transmission ratio of the transmission of the URLLC data.

7. The method of claim 6, wherein the configuring the ratio of the plurality of downlink intervals to the plurality of downlink intervals of the URLLC subframe configuration includes selecting a ratio from a plurality of asymmetric ratios based on the indicated asymmetric downlink transmission to uplink transmission ratio of the transmission of the URLLC data.

8. The method of claim 7, wherein the plurality of asymmetric ratios includes predetermined ratios of the plurality of downlink intervals to the plurality of downlink intervals of the URLLC subframe configuration stored in memory of the network entity.

9. The method of claim 1, wherein the acknowledgement received over the FDD band is received during the plurality of downlink intervals during which the at least a portion of the URLLC data is transmitted to the wireless apparatus.

10. The method of claim 9, further comprising retransmitting to the wireless apparatus over the TDD subframe, in response to the acknowledgement received over the FDD band, the at least a portion of the URLLC data during the plurality of downlink intervals during which the at least a portion of the URLLC data was initially transmitted to the wireless apparatus.

11. An apparatus configured for wireless communication, comprising: means for determining that data scheduled for transmission using a Time-Division Duplex, TDD, band over a TDD subframe (300) includes Ultra-Reliable Low-Latency Communications, URLLC, data; and means for utilizing, in response to the determining, a URLLC subframe (400) configuration for the TDD subframe, wherein the URLLC subframe configuration includes a plurality of downlink intervals (401, 404) and a plurality of uplink intervals (402, 405); means for transmitting to a wireless apparatus at least a portion of the URLLC data over the TDD subframe, having a URLLC subframe configuration, during the plurality of downlink intervals; and

means for receiving an acknowledgement from the wireless apparatus, in response to the transmitted at least a portion of the URLLC data, over a Frequency-Division Duplex, FDD, band.

12. The apparatus of claim 11, wherein the URLLC subframe configuration further includes at least one control channel interval, and wherein the at least one control channel interval of the URLLC subframe configuration is aligned with a control channel interval of a nominal TDD subframe of a neighboring cell.

13. The apparatus of claim 11, further comprising: means for determining a desired latency for the transmission of the URLLC data; and means for adjusting, based on the desired latency, a transmission time interval, TTI, for the URLLC subframe configuration.

14. The apparatus of claim 11, wherein the acknowledgement received over the FDD band is received during the plurality of downlink intervals during which the at least a portion of the URLLC data is transmitted to the wireless apparatus.

15. A computer program comprising executable instructions for causing at least one computer to implement the method according to any of the claims 1 - 10 when executed.