serving cell to provide PDSCH assignments and/or PUSCH grants for transmissions in other serving cell(s).

SUMMARY

[0008] A method and apparatus for Time Division Duplex (TDD) operation in a wireless transmit/receive unit (WTRU) are disclosed. The method includes receiving a first TDD uplink (UL)/downlink (DL) configuration for a serving cell, receiving a second TDD UL/DL configuration for the serving cell, receiving an indication of directions to use for subframes with conflicting directions between the first TDD UL/DL configuration and the second TDD UL/DL configuration, using the first TDD UL/DL configuration for timing of UL scheduling and UL Hybrid Automatic Repeat Request (HARQ), using the second TDD UL/DL configuration for timing of DL scheduling and DL HARQ, and determining a direction for each subframe with conflicting directions based on the received indication, wherein on a condition that the determined direction for a subframe with conflicting directions is DL, receiving in the subframe in the DL.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 shows an example of a TDD frame;

[0010] FIG. 2 shows an example of TDD UL/DL configurations in accordance with LTE;

[0011] FIGS. 3A-3F show examples of RE locations which may also be called patterns of WTRU-specific reference signals, DM-RS patterns or DMRS patterns;

[0012] FIG. 4A is a system diagram of an example communications system in which one or more disclosed embodiments may be implemented;

[0013] FIG. 4B is a system diagram of an example wireless transmit/receive unit (WTRU) that may be used within the communications system illustrated in FIG. 4A;

serving cell to provide PDSCH assignments and/or PUSCH grants for transmissions in other serving cell(s).

SUMMARY

[0008] In a first aspect, there is provided a method for Time Division Duplex (TDD) operation in a wireless transmit/receive unit (WTRU), the method comprising: receiving a first TDD uplink (UL)/downlink (DL) reference configuration for a serving cell; receiving a second TDD UL/DL reference configuration for the serving cell; receiving a third TDD UL/DL reference configuration for the serving cell; using the first TDD UL/DL reference configuration for timing of UL scheduling and UL Hybrid Automatic Repeat Request (HARQ); using the second TDD UL/DL reference configuration for timing of DL scheduling and DL HARQ; and using the third TDD UL/DL reference configuration as an indication for determining a UL or DL direction for each subframe; wherein on a condition that the determined direction for a subframe is DL, receiving in the subframe in the DL.

[0008a] In a second aspect, there is provided a wireless transmit/receive unit (WTRU) for Time Division Duplex (TDD) operation comprising: a receiver configured to receive a first TDD uplink (UL)/downlink (DL) reference configuration for a serving cell; the receiver is further configured to receive a second TDD UL/DL reference configuration for the serving cell; the receiver is further configured to receive a third TDD UL/DL reference configuration for the serving cell; a processor configured to use the first TDD UL/DL reference configuration for timing of UL scheduling and UL Hybrid Automatic Repeat Request (HARQ); the processor is further configured to use the second TDD UL/DL reference configuration for timing of DL scheduling and DL HARQ; and the processor is further configured to use the third TDD UL/DL reference configuration as an indication for determining a UL or DL direction for each subframe; wherein on a condition that the determined direction for a subframe is DL, receiving in the subframe in the DL.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 shows an example of a TDD frame;

[0010] FIG. 2 shows an example of TDD UL/DL configurations in accordance with LTE;

[0011] FIGS. 3A-3F show examples of RE locations which may also be called patterns of WTRU-specific reference signals, DM-RS patterns or DMRS patterns;

[0012] FIG. 4A is a system diagram of an example communications system in which one or more disclosed embodiments may be implemented;

[0013] FIG. 4B is a system diagram of an example wireless transmit/receive unit (WTRU) that may be used within the communications system illustrated in FIG. 4A;