

METHOD AND APPARATUS FOR UTILIZING A DIRECTIONAL BEAM ANTENNA IN A WIRELESS TRANSMIT/RECEIVE UNIT

Abstract:

A method and apparatus for utilizing a switched beam directional antenna in a wireless transmit/receive unit (WTRU) is disclosed. A wireless communication system includes a serving cell, a neighbor cell and a WTRU. The WTRU is configured to generate and steer a directional beam in a plurality of directions. Once the WTRU registers with the wireless communication system, the WTRU receives messages transmitted by the serving cell. The WTRU measures signal quality of messages received in each of a plurality of predetermined directions while steering the directional beam antenna. The WTRU selects a particular one of the directions having the best signal quality. As the WTRU constantly moves, the WTRU monitors signal quality in the selected direction, and switches to another direction when the signal quality in a current direction drops below a predetermined threshold.

Figure 2