

CLAIMS

What is claimed is:

1. A wireless transmit/receive unit (WTRU) comprising:

~~one or more~~ at least one antennas;

a first transceiver operatively coupled to the ~~one or more~~ at least one antennas; ~~and~~

~~a second transceiver operatively coupled to the at least one antenna, wherein:~~

the ~~one or more~~ at least one antennas and the first transceiver are configured to receive a first signal from a network, wherein the received first signal comprises one or more sections of different time duration and amplitudes, wherein the one or more sections have a same ~~without using energy of the WTRU;~~

the ~~one or more antennas and the~~ first transceiver is further configured to extract energy from the received first signal;

the first transceiver is further configured to ~~examine a separation in time between energy threshold events to~~ decode an energy signature of the received first signal by comparing a separation in time between energy threshold events;

the first transceiver is further configured to, on a condition that the decoded energy signature matches a configured energy signature, activate ~~the~~ second transceiver ~~operatively coupled to the one or more antennas on a condition that the decoded energy signature matches a stored energy signature, wherein the second transceiver is powered by the WTRU;~~ and

the ~~one or more~~ at least one antennas and the second transceiver are configured to receive a second signal from the network.

2. The WTRU of claim 1, wherein the energy threshold events are generated by determining that an amount of the extracted energy ~~stored in a temporary storage element~~ exceeds a threshold.

3. The WTRU of claim 2, wherein the separation in time between energy threshold events is based on ~~one or more of a capacity of the temporary storage element and~~ a configured value of the threshold.

4. The WTRU of claim 1, wherein the energy threshold events are converted to a digital signal by transferring based on a transfer of the extracted energy ~~from a temporary storage element to a permanent storage element.~~

~~5. The WTRU of claim 1, wherein the first signal comprises one or more sections of different time duration and amplitudes with a constant energy.~~

6.5. The WTRU of claim 1, wherein the first transceiver comprises a passive receiver that is powered only by the received first signal.

~~7.6.~~ The WTRU of claim 1, wherein the second transceiver is powered by a battery.

~~8.7.~~ The WTRU of claim 1, wherein the second transceiver comprises a primary transceiver.

~~9.8.~~ The WTRU of claim 1, wherein the first transceiver is operatively coupled to a first antenna of the ~~one or more~~ at least one antennas and the second transceiver is operatively coupled to a second antenna of the ~~one or more~~ at least one antennas.

~~10.9.~~ The WTRU of claim 1, wherein the WTRU is configured to ~~extracting the energy from the received first signal~~ and ~~the comparing are performed~~ compare a separation in time between energy threshold events concurrently.

~~11.10.~~ The WTRU of claim 1, wherein the ~~stored~~ configured energy signature comprises a start sequence that is required to initiate the activation of the second transceiver.

~~12.~~ A wireless transmit/receive unit (WTRU) comprising:

~~one or more antennas;~~

~~a first transceiver operatively coupled to the one or more antennas, the one or more antennas and the first transceiver configured to receive a first signal from a network without using energy of the WTRU;~~

~~the one or more antennas and the first transceiver further configured to extract energy from the first signal;~~

~~the first transceiver further configured to compare a separation in time between energy threshold events and to decode an energy signature of the first signal, wherein the energy threshold events are generated by determining that an amount of the extracted energy stored in a temporary storage element exceeds a threshold, and wherein the separation in time between energy threshold events is based on one or more of a capacity of the temporary storage element and a configured value of the threshold;~~

~~the first transceiver further configured to convert the energy threshold events to a digital signal by transferring the extracted energy from a temporary storage element to a permanent storage element;~~

~~the first transceiver further configured to activate a second transceiver operatively coupled to the one or more antennas on a condition that the decoded energy signature matches a stored energy signature, wherein the second transceiver is powered by the WTRU; and~~

~~the one or more antennas and the second transceiver configured to receive a second signal from the network.~~

~~13.11.~~ A method for use in a wireless transmit/receive unit (WTRU), the method comprising: receiving a first signal from a network using a first transceiver, wherein the received first signal comprises one or more sections of different time duration and amplitudes, wherein the one or more sections have a same ~~without using energy from the WTRU;~~

extracting energy from the received first signal ~~and comparing a separation in time~~

~~between energy threshold events;~~

decoding an energy signature of the received first signal by comparing a separation in time between energy threshold events;

activating a second transceiver ~~operatively coupled to the one or more antennas~~ on a condition that the decoded energy signature matches a stored configured energy signature, ~~wherein the second transceiver is powered by the WTRU~~; and

receiving a second signal from the network using the second transceiver ~~powered by the WTRU~~.

~~4412.~~ The method of claim ~~4311~~, further comprising:

generating the energy threshold events by determining that an amount of the extracted energy ~~stored in a temporary storage element~~ exceeds a threshold.

~~4513.~~ The method of claim ~~4412~~, wherein the separation in time between energy threshold events is based on ~~one or more of a capacity of the temporary storage element and~~ a configured value of the threshold.

~~4614.~~ The method of claim ~~4311~~, further comprising:

converting the energy threshold events to a digital signal by transferring based on a transfer of the extracted energy ~~from a temporary storage element to a permanent storage element~~.

~~17. The method of claim 13, wherein the first signal comprises one or more sections of different time duration and amplitudes with a constant energy.~~

~~4815.~~ The method of claim ~~4311~~, wherein the first transceiver comprises a passive receiver that is powered only by the received first signal.

~~4916.~~ The method of claim ~~4311~~, wherein the second transceiver is powered by a battery.

~~2017.~~ The method of claim ~~4311~~, wherein the second transceiver comprises a primary transceiver.

18. The WTRU of claim 1, wherein the configured energy signature is received from a network.

19. The WTRU of claim 4, wherein the transfer of the extracted energy is from a temporary storage element to a permanent storage element.

20. The method of claim 11, further comprising receiving the configured energy signature from a network.

21. The method of claim 14, wherein the transfer of the extracted energy is from a temporary storage element to a permanent storage element.