ABG Tag and Traq, LLC
Product: TNTRFMOD1
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Operational Description:

Ultra-Wideband (UWB) Tags are active battery-powered devices which are affixed to an asset that is to be monitored and/or tracked. The tags emit extremely short duration radio frequency (RF) pulses to convey information specific to that asset, such as its serial number, and can provide optional sensor data as well. The tags can also include sensors such as voltage measurement sensor, motion detector, light detector, temperature sensor, etc. The data from included sensors can optionally be encoded in the emitted UWB packet. Also, the tag may be programmed remotely. The programmability of the tags allow for sensors to affect its operation. For instance, the transmission rate is a programmable parameter. The UWB tag can be motion activated to significantly extend battery life. In this application, it can be configured to transmit once every hour, when it is not moving to show that it is still operational; however, the moment the tagged asset starts to move, the packet transmission rate can increase to once every second.

These emitted pulses are detected by the UWB receivers. The UWB receivers detect, timestamp, and decode the emitted UWB signals and forward the packetized data to the Central Processing System (CPS). The CPS then processes all data streams to calculate a location of the tag and stores any relevant information in a database. The database can then be accessed by the customer to implement any business rules required.