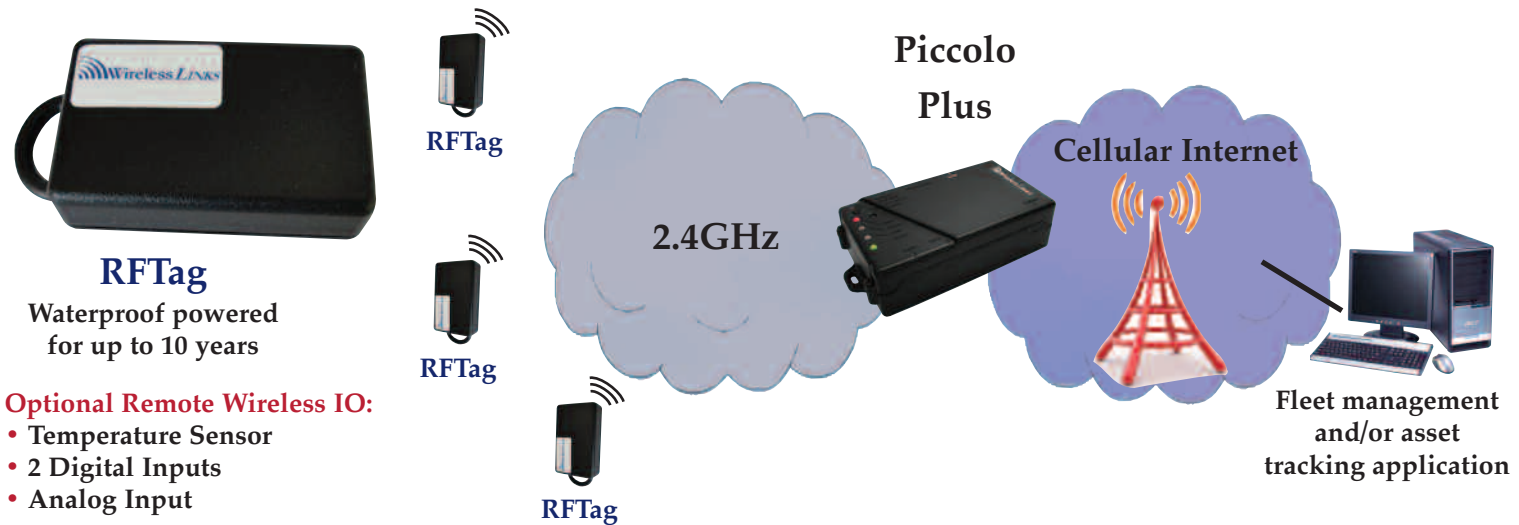


For yard/campus asset tracking and/or remote wireless IOs using  
RF Tags integrated with the Piccolo Plus



### Active RFID Made Affordable by Innovation

Wireless Links RFLink is an Active RFID system that comprises of a small RFTag that is placed on assets to be monitored communicating via RF at 2.4GHz to the Piccolo Plus. In addition to its fleet management functionalities it also functions as a hub for the RFTags that are within RF reception radius that can be up to 250 feet (70m). The data received from the RF Tags is processed by the Piccolo Plus and depending of the particular requirements the data is routed by the Piccolo Plus via the cellular network to the fleet management and/or asset tracking server. The RFTag sends the Piccolo Plus a ping message every 10 seconds. The message includes the unit ID, the RF signal strength, and optionally IOs. Every RF Tag may be assigned to communicate to one particular Piccolo Plus or any number of Piccolo Plus units defined within a system.

The RFTag has a powerful 32bit CPU with a 2.4 GHz IEEE802.15.4 transceiver and a 600mAh lithium battery that can power the unit for around 5 years all packaged in a small waterproof enclosure 1.3"x 2.55"x 0.6" LWD (33mm x 65mm x 16mm) that sends ping data every 10 sec. When packaged with an internal antenna the transmission radius is around 250 feet (70m).

#### Applications for RFLink:

- An RFTag is placed on every asset within a yard such as: trailers, containers, generators etc. and a few Piccolo Plus units are installed on poles. Once an asset is moved, the Piccolo Plus will detect the disconnect of the ping of the particular RFTag and will report to the server via the cellular network. When a new asset is parked within a radius of up to 250 feet (70m) of a particular Piccolo Plus, the new RFTag's ping will be detected and its ID will be sent to the server. The location of each Piccolo Plus is known via GPS as such the last known location of the asset is within the radius of the signal reception of a Piccolo Plus.
- An RFTag is placed on a trailer or container that is moved by a truck to a particular location. In the cabin of the truck a Piccolo Plus is installed. Once the trailer is disconnected from the truck, the Piccolo Plus will lose communication with the RFTag and will send the disconnect message to the server with its GPS location.
- The RFTag has the option of sending two digital inputs. For example, if the door of a container is opened the RFTag will send the data to the Piccolo Plus that will generate an alarm message sent via cellular to the server.
- Similar as above, the RFTag can monitor temperature in various refrigerators in a supermarket or refrigerated trailer yard.

