



The Aquila Multipurpose Active RFID Tag



The Aquila Active RFID Tag is designed to transmit a unique identification number and sensor data periodically.

Various sensor options include motion, accelerometer, tap detection, double tap detection, free fall detection, temperature measurement, contactless temperature measurement. All sensor data is included in each transmission.

Various peripherals include a vibration motor, LED and buzzer. Configuration mode allows for enabling or disabling. This mode also allows control of different parameters.

A high data rate of 1Mbps being used allows for a very short on air time, long battery life and a large amount of simultaneously operating devices in the same area, thus eliminating congestion.

The device operates from a small coin cell as a power source and includes a battery status reporting feature, allowing the user to accurately predict and schedule a service of the lithium battery cell. The battery is easily replaceable.

Two signaling devices can be optionally included to provide either vibration or sound for special applications.

The device is capable of reliable performance within a harsh operating environment typically encountered in commercial environments.

An advanced custom designed antenna ensures reliable performance when close to metal or a human body.

The electronic components are conformally coated to avoid rust.

The device is encapsulated in a custom designed enclosure with various mounting options or personal wearing options.

Bi-directional communication allows for both tag to tag or more commonly tag to reader scenarios.

Durable and light weight. Wide operating temperature & humidity range. Automotive version available on request.

Microprocessor based unit using FLASH & EEPROM re-programmable technology. Allows for flexible factory configuration.

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Key Features

- Unique identification number.
- Motion detection.
- Increased transmission rate when motion detected.
- Three axis accelerometer with tap, double tap and free fall detection.
- Buzzer.
- LED.
- Miniature vibration motor.
- Light Sensor.
- Ambient Temperature measurement sensor.
- Contactless temperature measurement sensor.
- Ultra low power consumption.
- Radiates maximum output power permitted by international SRD (Short Range Device) standards.
- Pseudo random transmission times and extremely short on air time to minimize channel congestion.
- Configurable transmit power.
- Bi-directional communication.
- Excellent antenna performance.
- Range unaffected by objects the device is attached to.
- Tag orientation, last beacon detected, battery status and sensor data included in each transmission.
- Various mounting options.
- Wrist strap.
- Child track mode.
- Impervious to water, steam & hydraulic oil ingress.



All peripherals are optional (i.e. LED, Buzzer, Motion Sensor, Accelerometer, Light Sensor)
Device is configurable.