

***This high performance active RFID tag has an expandable memory of 8,000 bytes and offers a reading distance of up to 100 feet from a handheld device or up to 300 feet from a fixed interrogator.***

This high-performance and power-efficient active RFID tag has an expandable memory of 8,000 bytes, an optional LED, and an optional sensor for monitoring temperature. It enables users to collect highly accurate, real-time data for identification, tracking and tracing, and localization.

This RFID tag conveys data via progressive UHF radio frequency technology at distance of up to 100 feet from a handheld device or up to 300 feet from a fixed interrogator, and the UHF operating frequencies allows low-power and long communication. Its outstanding anti-collision multi-tag-handling algorithm provides clear communication to a large number of tags tracking of assets or people. This UHF Active RFID tag provides users with a diverse selection of options and housing designs depending on intended use.



## **Applications:**

Identification, tracking, and localization of assets or people

## **Features:**

- ✓ 100-meters (300 ft) read/write range:  
Allows automated identification, tracking and tracing of assets and people without human intervention.
- ✓ 8,000-byte memory (Option: 32,000):  
Stores user and process information as well as temperature data onto the tag to provide real-time tracking and tracing. Can be used as an electronic packing slip or as an electronic shop traveler.
- ✓ UHF operating frequencies: Allows low-power, long communication range and high data transmission rates with minimal interference due to local conditions.
- ✓ 100-tag/s identification rate: Provides reliable identification of fast moving-objects.
- ✓ 2,000-tag simultaneous identification:  
Large numbers of tags can be identified virtually simultaneously.
- ✓ Temperature logging (Option):  
Measures and logs the temperature of goods in definable intervals.
- ✓ LED (Option): Provides visual identification of an addressed tag ("pick by light").
- ✓ 6-year battery lifetime: Delivers long-time maintenance-free operation, without battery replacement.

- ✓ **Non-line-of-sight data transmission:**  
Allows tags to be buried while transmitting for improved tracking/locating efficiency.
- ✓ **Low cost:** Economical tracking of large quantities of assets using high-performance active technology.
- ✓ **Communication on demand only:**  
Eliminates RF flooding through software-controlled read/write operations.



## Specifications

<b>Performance</b>	
Read rate	Up to 100 tags/s (Identification Code only)  Up to 35 tags/s at 128 bit data reading
Max. response time	< 150ms (single tag)
Multiple tag handling	Up to 2,000 tags in the read zone
<b>Communication</b>	
Read/Write range	Up to 100m (300 feet) at free air
Operating Frequency	868 MHz (EC) or 915 MHz (NA) ISM Band
Data rate (download to tag)	115.2kbits/s
Date rate (upload to reader)	115.2kbits/s
Maximum transmission power	0.75mW ERP
Standards/ Certification	EN 300 220 (EC); FCC Part 15 (US); Industry Canada
<b>Electrical</b>	
Power source	Lithium battery (not replaceable)
Expected battery life	> 6 Years at 600 times 128 bit readings/day
Battery monitoring	Yes
Temperature logging (option)	
Number of samples	13,312
Interval	User definable in intervals from 1 to 255 minutes
Accuracy	± 0.5°C (1 °F) over a range of –40°C to 85°C (– 40 °F to 185 °F)
Resolution	0.25°C (0.5 °F)
<b>Data</b>	
Data retention	>10 years without power
Write cycles	100,000 writes to a tag
Memory size	7,855 bytes user definable for one group of tags

and 32,431 bytes user definable for another group

Identification code	48 bit fixed ID
<b>Environmental</b>	
Operating temperature	-40°C to 85°C (-40°F to 185°F)
Shock	50 G, 3 times DIN IEC 68-2-27, Multiple drops to concrete from 1 m (3 ft)
Vibration	3 G, 20 sine wave cycles, 5 Hz to 150 Hz, DIN IEC 68-2-6; 5 G, noise 5 Hz to 1000 Hz, 30 minutes DIN IEC 68-2-64
<b>Physical (Industrial Housing)</b>	
Dimensions	131 mm x 28 mm x 21 mm; (5.2 in. x 1.1 in. x 0.85 in.)
Enclosure	Plastic (ASA / Luran® S)
Weight	50g (1.75 ounces)
Enclosure rating	IP 65





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