

# FT-1002 UHF tag

The UHF FT-1002 passive tag can be used on any surface. The tag is RoHS and ATEX compliant. It is particularly resistant to harsh environments such as chemical area, high temperatures (up to 100°C)...

Despite its very small size, it is able to read up to a distance of 6m.

## Key features

- Passive tag
- RoHS compliant
- ATEX compliant
- Durable IP69K rating

## Applications

- Aerospace
- Military
- ...

## Functional specifications

Type	UHF
Frequency	865-868 MHz (EU) 902-928 MHz (US)
Air interface protocol	EPC Global Class1 Gen2, ISO/IEC 18000-6C
IC Type	Alien Higgs3 (others on request) <b>Optional:</b> EM, Fujitsu, Impinj, NXP (others on request)
Memory	EPC 96 bit. User 128 bit. Extended memory memory 512 bit. TID 64 bit <b>Optional:</b> Up to 240 bit
Read range	3 to 6m

## Physical specifications

Dimensions	17.9*3.12mm; Chip: 4.2mm
Tag Material	Self extinguishing polyolefin
Applicable surface	Any material (metal reduces read distance significantly unless modified)

## User environment

Certificates	RoHS Approved, ATEX compliant
Storage Temperature	-50°C to 100°C
Resistance	Tensile strength: 2500 psi minimum
Protection grade	IP69K

## Read range

	UHF max read-range on metal with 4W ERP
FT-1002 (915 MHz)	660.4cm / 260 inches (6.63 m / 21.75 feet)

The read range listed above was obtained from a lab test environment. Actual test results may be different. Testing in actual use environments is strongly recommended.

## Environmental specifications

Temperature Cycling Test	100°C, continuous for 30-days 200 °C continuous - with degradation of the plastic, but not the tag
Weather resistance	Excellent, including UV-resistance and sea water immersion
Chemical resistance	No physical or performance changes in: - Salt water - NaOH (depending on concentration) - Sulfuric acid (depending on concentration) - Motor oil (tested in 168 hour exposure) Generally good against: - Most solvents - Most acids and bases

\* NOTE: The RFID tag will not be functional if the FT-1002 tag is left at the maximum indicated temperatures such that the internal soak temperature exceeds +80 deg C. The RFID tag itself will (resume) function between -50 deg C and +80 deg C.

## Supported services

- Tag pre-encoding
- For further details, please contact AXEM Technology

## Possible applications

Metal surfaces	Metal returnable containers, metal canisters, metal pallets, metal pipes, high value metal items,
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## Installation

- Wrap the tag around or along an object.
- Embed the tag into; fiberglass, composites, wood, concrete, compression or injection molds,...
- Fix the tag with a painting adhesive
- Clips or eyelets