



WAFER-THIN UHF RFID TAGS THAT WEATHER HARSH TREATMENT

- ▣ **High heat** – endures up to 446° F (230° C)
- ▣ **Impermeable** – repels moisture, oils, petroleum and salt mist
- ▣ **Flexible** – tolerates bending and torsion with uncompromised performance

The rugged High Temperature Label portfolio of UHF RFID tags can withstand exposure to high temperatures, flames, chemicals, pressure and torsion, with uncompromised performance.

Originally designed for the automotive industry, High Temperature Labels help identify and track each vehicle both during assembly and throughout its life on the road. Lifetime traceability of auto parts and components enables more accurate and efficient records which can help automakers expedite service in the event of a recall.

High Temperature Labels deliver consistent and reliable readability during the rigors of auto manufacturing, including welding operations, autoclaves, anti-corrosive electrolyte baths, cycles of paint layer application, and drying ovens that exceed 400° F (200° C).

Resistance to severe physical, mechanical and thermal environments makes this portfolio of tags ideal for all types of manufacturing, logistics and inventory control operations, especially tracking both work-in-progress and finished goods for various products such as industrial tools, medical trays, heavy equipment, car and aerospace components, cargo containers, and even blade and rack servers.

Standard High Temperature Labels are compliant with EPC Global Class 1 Gen 2, ISO 18000-6C readers. Custom form factors are available to meet specific needs; for example, they may be laser-imprinted with barcodes, QR codes or text, enabling visual systems to work in combination with advanced RFID capabilities.

TECHNOLOGY HIGHLIGHTS

- ▣ Broadband worldwide operating frequency, 865 to 956 MHz
- ▣ 512 bit EEPROM user memory
- ▣ Performs from -40° to +446° F (-40° to +230° C)
- ▣ Highly resistant to water, oils, petroleum, salt mist and flames
- ▣ Thickness less than 0.02 in (0.5 mm)
- ▣ EPC Global Class 1 Gen 2, ISO 18000-6C

APPLICATION AREAS:

- ▮ Asset tracking and logistics
 - Equipment
 - Fleet management
 - Tools
- ▮ Automation and manufacturing
 - Aerospace
 - Automotive
 - Machinery



SPECIFICATIONS	
	High Temperature Label
Base Model Number	6A7902
	ELECTRONIC
Operating Frequency	865-956 MHz (Worldwide)
Chip Type	Monza 4QT
Memory	128 bit EPC + 96 bit TID + 512 bit EEPROM
Anti-Collision	Yes
Reading Distance 2 W reader ERP, free space	Up to 26.2 ft (8 m)
	PHYSICAL
Dimensions	3.1 x 2.0 x 0.02 in (80 x 50 x 0.5 mm)
Mounting Method	Screw or rivet
Fixation Hole Size	Ø 0.2 in (5 mm) x 2
Affixes To	Glass, plastic, wood, metal (if tag in free air)
Housing Material	Aramid polymer
Color	Beige
Weight	0.1 oz (2.5 g)
	CHEMICAL AND MECHANICAL RESISTANCE
Water	IP68, 68° F (20° C), 3.3 ft (1 m) x 24 h
Withstands Exposure To	Mineral oil, petroleum, salt mist, vegetable oil
Environmental Test Conditions	68° F (20° C), 100 h
Flame Resistance	UL 94V-0
Vibration	IEC 68.2.6 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]
Shock	IEC 68.2.29 [40 g, 18 ms, 6 axis, 2000 times]
Axial / Radial Force	50 N, 1 x 10 sec
Bending	Soft: 11.8 in (300 mm) curve radius x 100 Hard: 3.9 in (100 mm) curve radius x 10
	THERMAL
Storage	-40° to +185° F (-40° to +85° C)
Operating	-40° to +185° F (-40° to +85° C)
Shock/Fatigue	+68° to +446° F (+20° to +230° C), 20 min with 30 sec transition x 3
Peak	284° F (140° C), 400 h 356° F (180° C), 100 h 446° F (230° C), 20 h
	OTHER
Standards	UHF EPC Class 1 Gen 2, ISO 18000-6C
Options	Laser imprinting; encoding; self-adhesive; alternate form factors
Box Size	800 pcs.
Warranty	2 Year



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