Universal On Site Printable Mini RFID Tag

The only thing “mini” about this tag is its size! With a smaller footprint and lower profile, the Onsite Printable Universal Mini RFID Tag easily fits where other tags may be too large and obtrusive and still gives incredible read ranges compared to other tags in its class. Developed the same as our Universal Mini RFID Tag – but now you can reap the benefits of onsite printing.

The Onsite Printable Universal Mini RFID Tag is a surface-independent tag that uses a patented inlay design and passive RFID technology to obtain excellent read ranges regardless of the surface – metal, plastic, even wood. Along with the Universal Mini RFID Tag, the Universal RFID Hard Tag, Universal Micro RFID Tag and the Universal MC RFID Tag, these products make up a revolutionary product line that allows you to use only one RFID tag for your asset tracking application.

This unique inlay adheres to a thermal transfer printing receptive substrate constructed from a variety of durable materials.

Features	Smaller footprint and lower profile while still achieving excellent read range sets this product apart from others Patented inlay design obtains excellent read ranges regardless of surface–metal, plastic, even wood Designed for easy setup for printing and RFID encoding Thermal transfer printer receptive Available for Next Day Delivery Roll of 500 tags is 52 ft. Compatible with RFID Tracking Software
Product Print Options	Barcode . Data Matrix . QR Code . RFID . Serial Number . Text
Product Functionality	Abrasion Resistance . Chemical Resistance . Heat Resistance
Popular Applications	Audio / Visual . Inventory . Restoration . Wineries / Breweries . IT Assets . Schools
Category	Manufacturing - RFID . Information Technology - RFID . Warehouse - RFID . Asset Tracking - RFID . Tool Tracking - RFID . Work-in-Process - RFID . RFID Tags . RFID for Metal Surfaces

Potential Applications for Onsite Printable Universal Mini RFID Tags

Asset Tracking – the barcode and human readable ID number on Onsite Printable Universal Mini RFID Tag can be used to track information about the metal asset the RFID tag is adhered to, i.e., laptops, furniture, containers, containers, equipment and more.

Work-in-Process – the barcode and/or identification number on Onsite Printable Universal Mini RFID Tag can identify a “batch” OR “lot” of product or just simply identify each product as it travels through the production process.

Specifications Data

Material	Thermal transfer printable polyester substrate
Standard Adhesive	Pressure sensitive acrylic adhesive
Frequency Range	Custom designed UHF inlay optimized for use between 902 - 928 MHz. (UHF, Class I Gen 2)
Sizes	2.75" x .75"
Packaging	Shipped in convenient 500-piece rolls that load easily into industry-leading industrial thermal transfer printers.

Chemical Testing

The Onsite Printable Universal Mini tags were attached to a sheet of glass submerged in various chemicals for a 3 week period. Observations were made at the following intervals: 2 hours, 24 hours, 1 week, 2 weeks, and 3 weeks. A Motorola handheld RFID reader was used to test the samples.

Chemical Test Data

Length of immersion	Water	Glass Cleaner	Bathroom Cleaner	Isopropyl Alcohol 99%	Acetone	NaOH pH 12.0	HCl ph 1.0	Brake Fluid
2 hours	no effect	no effect	no effect	no effect	no effect	no effect	no effect	no effect
24 hours	no effect	no effect	no effect	no effect	no effect	no effect	no effect	no effect
1 week	no effect	no effect	RFID tag read with difficulty (significantly lower hits/second)	No read	Tag structure weakened	Tag detached	no effect	no effect
2 weeks	no effect	RFID tag read with difficulty (significantly lower hits/second)	RFID tag read with difficulty (significantly lower hits/second)	no read	no read	tag detached	no read	no effect
3 weeks	tag peeled easily	tag peeled easily	no read; tag peeled easily	no read; tag peeled easily	no read	tag detached	no read; tag peeled easily	no effect

Destructive Testing

Destructive Test Data

Temperature Testing

High-temperature resistance test - These tags were attached to a sheet of glass at raised temperatures for 10 minutes. Tags were then removed from the oven and tested for readability immediately. Low-temperature resistance test - The Onsite Printable Universal Mini tags were attached to a sheet of glass at low temperatures outdoors. Tags were then checked for readability with a Motorola handheld RFID reader. Tags survived and were readable for 19 hours in Iowa winter conditions with temperatures between -21 to -26°F with no signs of failure.

Temperature Test Data

Temperature	RFID read test (immediately out of oven)	Appearance of tags
125°F	Reads well	No change
135°F	Reads well	No change
145°F	Reads well	No change
165°F	Reads well	Slight curling at edge
185°	Reads well	Slight curling at edge
205°F	Reads well	Slight curling at edge
225°	Reads well	Severe curling at edge - tag discolored
250°	Test failed	Tag destroyed

Read Range Testing

In many cases the tags read intermittently for longer distances than those indicated, however, the results reported below were for continuously responding reads.

Read Range Test Data

Sample	Metal	Plastic	Cardboard	Wood	Glass
Average	13.47 feet	6.8 feet	6 feet	9.67 feet	13.33 feet

Barcode Readibility Testing

Barcode Readability Test Data

Abrasion Testing

Abrasion Test Data

Label Adhesion Testing

Label Adhesion Test Data

Pull Testing

Pull Test Data