

Onsite Printable Universal Mini RFID Asset Tags



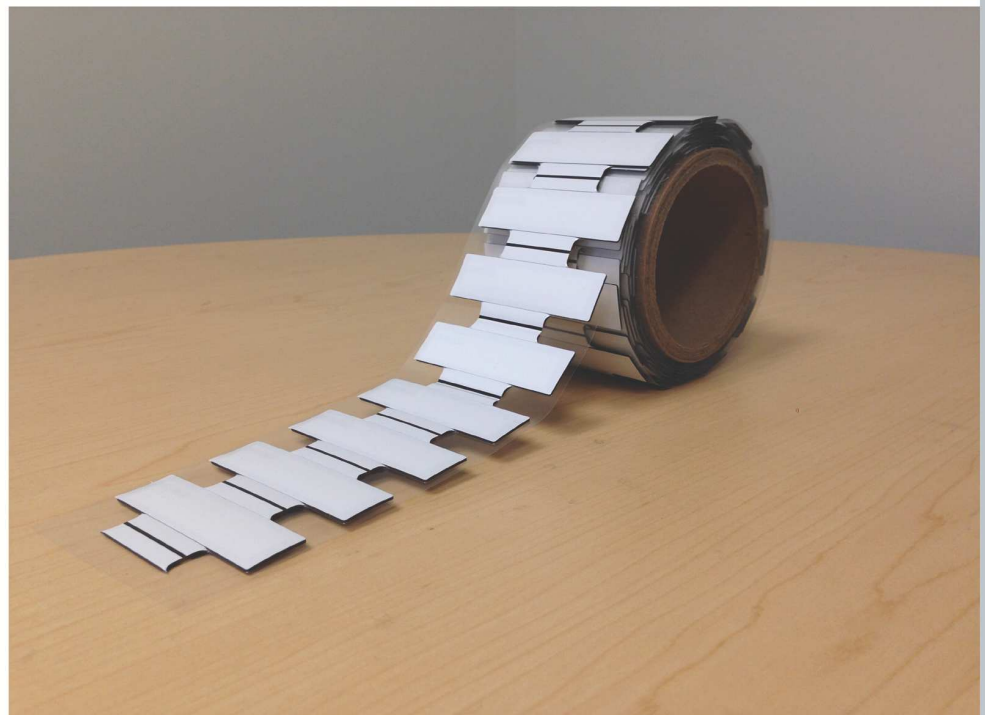
The only thing “mini” about this tag is its size! With smaller footprint and lower profile, the Onsite Printable Universal Mini RFID Asset Tag easily fits where other tags may be too large and obtrusive and still gives incredible read ranges compared to other tags in its class. Developed the same as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

The Onsite Printable Universal Mini 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 RFID Asset Tag, Universal Mini RFID Asset Tag and Universal RFID Hard 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.

Key Product 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
- Thermal transfer printer receptive



Licensed Products are licensed under the following patents: United States Patent Nos. 7,768,400; 7,880,619; 8,299,927; 8,264,358; 8,502,678

Onsite Printable Universal Mini RFID Asset Tag Specifications

Construction: Thermal transfer printable substrate options of polyester or paper.

Frequency: Custom designed UHF inlay uses Alien Higgs 3 chip optimized for use between 902 - 928 MHz.

Ribbon Recommendations: Metalcraft recommends using a hybrid wax/resin ribbon for the paper face. For the polyester face we recommend a full resin ribbon or other ribbon that is compatible with synthetic film.

Standard Size: 2 3/4" x 3/4"

Standard Adhesive: Pressure-sensitive acrylic (MC778), .002" thick supported by a liner. Very high peel strength that provides excellent resistance to heat and chemicals. Withstands temperatures from -40°F to 300°F (intermittent). Shelf life of 24 months when stored at 72°F (22°C) and 50% relative humidity.

Shipment: Next day shipping available. Dependent on order quantity and inventory.

Test Description

These tests were conducted for a limited period of time in strict laboratory conditions. In order to achieve maximum satisfaction we highly recommend that any customer considering use of this product test the labels in the environment in which they will be used. Tests were conducted for inlay and adhesion, not for print readability.

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	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°F	Reads well	Slight curling at edge
205°F	Reads well	Slight curling at edge
225°F	Reads well	Severe curling at edge - Tag discolored
250°F	Test failed	Tag destroyed

Inlay and Adhesive Chemical Soak Test - 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.

Length of Immersion	Water	Glass Cleaner	Bathroom Cleaner	Isopropyl Alcohol 99%	Acetone	NaOH pH 12.0	HNO ₃ pH 1.0	HCl pH 1.0	Brake Fluid
2 Hours	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.
24 Hours	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.
1 Week	N.E.	N.E.	**	No read	Tag structure weakened	Tag detached	N.E.	N.E.	N.E.
2 Weeks	N.E.	**	**	No read	No read	Tag detached	No read	No read	N.E.
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 read; Tag peeled easily	N.E.

** = RFID tag read with difficulty (significantly lower hits/second)

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

Onsite Printable Universal Mini Anechoic Chamber Results					
Sample Average	METAL	PLASTIC	CARDBOARD	WOOD	GLASS
	13.47 feet	6.8 feet	6 feet	9.67 feet	13.33 feet

