

Universal Micro RFID Tag



The Universal Micro measuring at 1 7/8" x 5/8" is a great solution to your identification projects that require a small RFID tag with great read range. With a tiny footprint and low profile (57 mils.), the Universal Micro RFID Asset Tag easily fits where other tags are too big and obtrusive.

Supplying up to 9 ft. of read range on metal and 4-5 ft. on plastic, wood and glass, the Micro provides incredible read ranges compared to other tags in its class. Its non-rigid, durable, foam core and polyester construction sets the Micro apart from molded RFID tags allowing for greater flexibility in tag placement.

Developed using the same premise as our original Universal RFID Asset Tag, the Universal Micro is a surface-independent using a patented inlay design and passive RFID technology to obtain excellent read ranges regardless of mounting surface.

Features

Extremely small footprint and thin profile while still achieving excellent read range
Custom engineered foam core designed specifically to obtain optimum read distances
Patented inlay design provides excellent read ranges regardless of surface material—metal, plastic, glass, even wood
Subsurface printing on durable polyester protects printed copy against moderate solvents and caustics/acids

Product Print Options

Barcode . Data Matrix . QR Code . RFID . Serial Number

Product Functionality

Abrasion Resistance . Chemical Resistance . Heat Resistance

Popular Applications

Audio / Visual . Government . Inventory . Restoration . Hospitals . IT Assets . Manufacturing . Schools

Category

On Metal RFID . RFID Tags . Universal RFID

Specifications Data

Material	Inlay wrapped around 39 mils custom engineered foam.
Serialization	Barcode and human-readable equivalent are produced using the latest high-resolution digital technology available, which provides excellent clarity and easy scanning. Code 39 is the standard symbology with a range of 2.7 to 9.4 CPI (characters per inch). Optional linear and 2D symbologies available.
Label Copy	The label copy may include block type, stylized type, logos or other designs
Colors	Standard colors include black, red, yellow, green, dark blue, purple, orange or blue. Custom spot colors are also available at no additional charge. Due to contrast needed for the bar code scanner, all bar codes are black.
Standard Adhesive	Pressure-sensitive acrylic adhesive
Frequency Range	Custom designed UHF inlay uses Alien Higgs-EC chip optimized for use at 915 MHz.
Sizes	1.875" x .625"
Packaging	Produced and shipped in roll form.
Shipment	14 business days

Chemical Testing

The Universal Micro tags were attached to a sheet of glass submerged in various chemicals. Observations were made at the following intervals: 2 hours, 24 hours, 48 hours. A Motorola handheld RFID reader as well as a handheld bar code reader were used to test the samples.

Chemical Test Data

Length of immersion	Water	Glas 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	adhesive	adhesive ooze	no effect	no effect	no effect
24 hours	no effect	no effect	no effect	adhesive ooze	tag delaminated	no effect	no effect	no effect
48 hours	no effect	no effect	no effect	adhesive	tag delaminated	no effect	no effect	no effect

Destructive Testing

Impact resistance test - Impact test consisted of 10 pound cylindrical weight being dropped vertically from a height of 15.75". Tag samples were placed on concrete floor. A tag passed the test if the inlay still reads with Alien ALH-9000 handheld reader. All tags tested all were still readable after being subject to impact with a 10 lb. weight dropped from a vertical distance of 15.75".

Temperature Testing

High-temperature resistance test - These tags were attached to a sheet of glass at raised temperatures for 15 minutes. Tags were then removed from the oven and tested for readability immediately. Low-temperature resistance test - The tags were attached to a sheet of glass and exposed to -40°F for 24 hours. Tags were then checked for readability with a Motorola handheld RFID reader. All samples were readable while at temperature just prior to removal from freezer. No tag construction defects were observed and adhesive still had a strong bond while in the freezer.

Temperature Test Data

Temperature	RFID read test (immediately out of oven)	Appearance of tags
200°F	Reads well	No change
300°F	Reads well	No change
400°F	Reads well	Slight curling at edge
500°F	Reads well	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

Universal Micro Anechoic Chamber Results

Sample	Metal	Wood	Glass	Plastic	Cardboard
Average	9 feet	5 feet	5 feet	4 feet	4 feet