

# Universal RFID Asset Tag

## The closest RFID Asset Tag you will find to a "one size fits all" RFID solution!

The **Universal RFID Asset 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 RFID Hard Tag**, these two products make up a revolutionary product line that allows you to use only one RFID tag for your asset tracking application.

The **Universal RFID Asset Tag** features an inlay design that offers the lowest profile of any tag in its class, solving a common issue many customers have with other metal mount RFID tags where a thick standoff creates an obtrusive nuisance for the user. The unique inlay adheres to a subsurface printed label constructed of durable, yet flexible polyester. This process protects the copy, logo and/or bar code against moderate solvents and caustics/acids.

The four colour processing capabilities allow you to promote your company with a label that shows off our company name or logo. Our digital printing process ensures even the most detailed corporate logos will look crisp and sharp.

### Test Results

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.

**Heat Testing** - Product withstood temperatures up to 115°C (240°F) for short term (10 minute) periods. They will withstand temperatures up to 71°C (160°F) for extended periods (tested for six hours with no degradation). The tests demonstrated that the transponder was not readable at temperatures above 85°C (185°F), but resumed function when temperatures were once again reduced below 85°C (185°F).

**Cold Testing** - Tags were tested outdoors at -40°C (0°F) and were readable, but read distance was reduced to half of the read distance observed at 15°C (60°F).

| Length of Immersion | Water | Glass Cleaner | Bathroom Cleaner pH 10.0 | Isop. Alcohol 99%            | Acetone 100%                 | NaOH pH 12.0                 | HNO3 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.                         | When pulled, tags came apart | N.E.                         | N.E.        | N.E.       | N.E.        |
| 1 Week              | N.E.  | N.E.          | N.E.                     | P.S. Adhesive softened       | When pulled, tags came apart | When pulled, tags came apart | N.E.        | N.E.       | N.E.        |
| 3 Weeks             | N.E.  | N.E.          | N.E.                     | When pulled, tags came apart | When pulled, tags came apart | When pulled, tags came apart | N.E.        | N.E.       | N.E.        |

N.E. = No Effect

\* = In all cases, after 3 weeks soaking in these chemicals, all the tags and labels responded properly when interrogated with a handheld RFID reader, and all the bar codes except those soaked in acetone were readable with a standard bar code reader.

**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.

| Device Used                 | Test Results (all at 30 dBm) |                    |                      |                 |
|-----------------------------|------------------------------|--------------------|----------------------|-----------------|
| Handheld Convergence CS-101 | METAL<br>27.5 feet           | PLASTIC<br>20 feet | CARDBOARD<br>15 feet | WOOD<br>15 feet |
| Universal RFID Asset Tag    |                              |                    |                      |                 |



### SPECIFICATIONS

|                   |  |
|-------------------|--|
| Construction      | 0.05 mm (0.002") thick polyester label adhered to proprietary inlay wrapped around 1.6 mm (1/16") closed cell foam. Total product thickness is approximately 2.0 mm (0.085")   |
| Label Copy        | The label copy may include block type, stylised type, logos or other designs. All copy, block type, stylised type, logos, designs, and bar code are subsurface printed.<br>This unique process provides moderate resistance to solvents, caustics, acids and abrasion.                                   |
| Colours           | Standard colours include black, red, yellow, green and blue. All bar codes are imaged in black only, due to the contrast needed for the bar code scanner.  |
| Serialisation     | Bar code and human readable equivalent are produced using the latest high resolution digital technology Available, which provides excellent clarity and easy scanning.<br>Code 39 is the standard symbology with a range of 2.7 to 5.4 CPI (characters per inch). <i>Optional symbology</i> is Code 128. |
| Programming       | The bar code and human readable can be programmed into the RFID inlay as long as the information is in decimal or hexadecimal format. We can encode up to 24 characters into the RFID inlay and if required we can encode information that differs from the bar code and human readable.                 |
| Locking           | All Universal RFID tags are password locked. A password can be designated by us, or the customer can designate their own specific password.  |
| Frequency         | High Performance Linear Imaging Engine   |
| Standard Sizes    | 73mm x 35 mm   |
| Standard Adhesive | 0.05 mm (0.002") thick low surface energy, pressure sensitive adhesive (MC71FL) provides excellent adhesion to uneven surfaces and slightly oil surfaces.  |

- Patented inlay (US Patent #8,169,322) design obtains excellent read range regardless of surface – metal, plastic and even wood
- Lowest profile in its class makes label unobtrusive
- Subsurface printing on durable polyester protects printed copy against moderate solvents and caustics/acids
- Digital printing process provides for greater print capability with detailed logos or special designs
- Choice of up to four standard or custom colours



## Our Innovation - Your Edge™

ASP MICROCOMPUTERS  
14 Business Park Drive, Notting Hill, VIC 3168  
T: 03 9578 7600 F: 03 9578 7727 Toll Free 1800 061 642  
E: [solutions@asp.com.au](mailto:solutions@asp.com.au) W: [www.asp.com.au](http://www.asp.com.au)

Specifications subject to change without notice (E&OE) 0320

