



Laminated RFID Hang Tag

Waterproof • Chemical & Solvent Resistant • Barcode & Variable Data • RFID Product • Medium Range RFID

Technical Data Sheet

Part: #WF- SM-17

General Description

Laminated RFID Hang Tag

- Economical, durable and easy to use
- Available with custom colors
- Single or double sided
- Indoor or outdoor use



Specially laminated hang tags survive harsh environments similar to much more expensive RFID tags. The rigid polyester construction coupled with a special heavy duty laminate guarantees moisture and UV resistance. Temperature resistance tested to 180°F.

Lowest Priced Durable RFID

The RFID hang tag is an economical outdoor durable RFID tag. To get the same combination of solvent, temperature, and UV- resistance in a standard RFID tag you would normally have to pay much more.

Flexible Attachment

The WF- SM-17 Laminated RFID Hang Tag can be attached using wires through pre- drilled holes. This RFID tag can also come with copper eyelet bracing on the holes for more durable attachment. Another available attachment option is 3M heavy duty permanent adhesive.

Applications

Identification Labeling, Cabinet Labeling, High Value Asset Labeling, Asset Marking & Tracking, Outdoor Use, High Temperature, Small Engine Labeling, Power Equipment Labeling

Material Description

Rigid Polyester Laminated RFID Hang Tag

Size (LxWxH)	4.25" x 3.25" x 0.015"
Available Colors	Any PSM Color or Colors (all colors)
Water Resistance	Excellent
Solvents Resistance	Good
Abrasion Resistance	Fair
Impact Resistance:	Good



Test*	Temperatures and Duration	Results
Maximum Temperature	Long- term at 10 hr: 200°F (94°C)	No effect on tag. Tag remained the same in appearance and RFID performance/ function. There was no sign of peeling, tearing or destruction. The tag read normal after the tests. *Test is not limiting.
	Standard at 5 min: 230°F (110°C)	
	Short- term at 90 sec: 240°F (116°C)	
Minimum Temperature	-40°F (-40°C)	
Temperature Cycling	The tag was cycled to 240°F at equilibrium for five times. Between each cycle, it was air cooled to room temperature and read with an RFID reader.	

RFID Performance

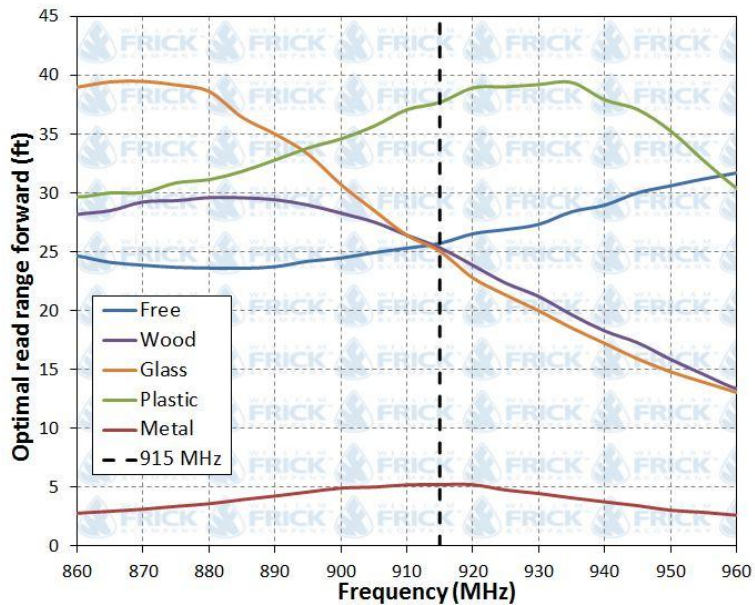
RFID Protocol:	UHF EPC Class 1 Generation 2
Tag Type:	Passive Read/ Write
Frequency Range:	860 ~ 960 MHz (Global)
Chip Manufacturer	Impinj Monza 3
Chip Memory	96 bits
	Dual Antenna Input for orientation indifference
	Rapid write rate of >15 tags/ second
	Impinj's field- rewritable NVM (optimized for RFID) with 96- bit EPC provides programming flexibility and 100,000- cycle/50- year retention reliability.

Tested Polarization:

Tag performance was experimentally measured in an anechoic chamber and a known set of experimental variables. The antenna used for measurements was linearly polarized and of monostatic configuration. The direction of tested polarization is as follows.



Optimal Read Range* on Different Material Surfaces:



*Tag performance was measured free of material influence, on a dry wood, window glass, thermoplastic, and steel slabs. Actual read ranges may differ depending on conditions such as environment, tag placements, hardware, etc.

Adhesive

Permanent Acrylic Backed Hang Tags

Versatile hang tag attachment by adhesive or wires

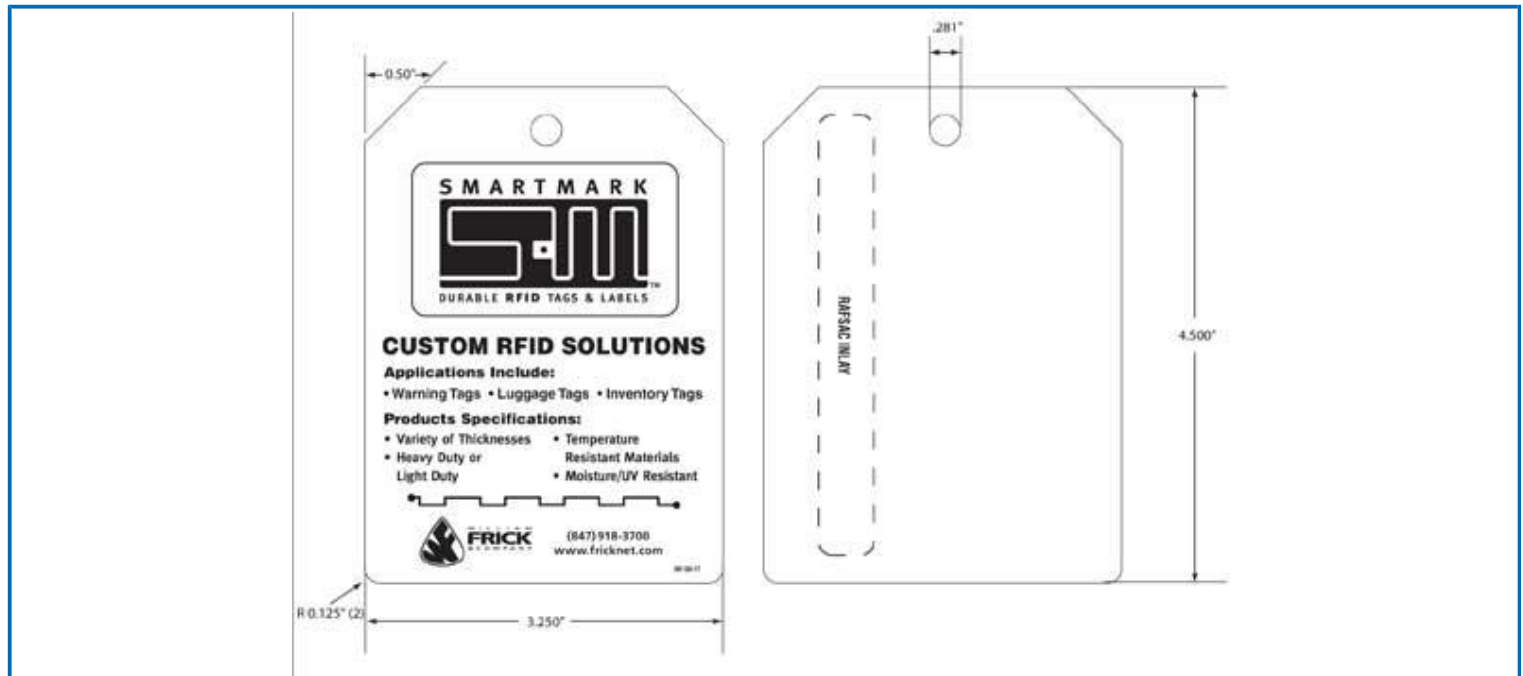
Thickness	2.0 mil
Min App Temp	50° F
Service Temp	-40° F to 200° F
Adhesion to Steel at 72 hr. dwell	Excellent
Adhesion to LSE plastics	Fair
Adhesion to HSE plastics	Very Good

Shelf life

Stored at 70F / 50% Relative Humidity

Stable at room temperature





<p>ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED</p> <p>TOLERANCES 3 PLACE DECIMAL + OR-.005" 2 PLACE DECIMAL + OR-.02" 1 PLACE DECIMAL + OR-.1"</p> <p>MAX SURFACE ROUGHNESS ALL MACHINED SURFACES EXCEPT AS NOTIFIED</p> <p>BREAK SHARP EDGES AND CORNERS .010" MAX</p>	Contact No.	William Frick & Co.			www.fricknet.com
	DWG.	Laminated RFID Hang Tag			
	Engr.				
	Chk.				
	Aprvd.	Size.	DWG No. WF- SM-17	Rev.	

