



## M-Nano Tag

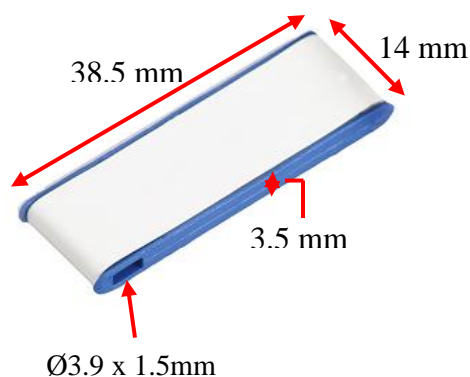
### FEATURES

- M-Nano Tag is very small in size & has very good read range, especially when attached to metal.
- The product has been designed to be easily attached by adhesive.
- Can be used with cable ties through its mounting hole.
- Flexible Read/Write Range (reader dependant).

### APPLICATIONS

- Used in IT asset tracking applications such as backup tapes, servers, hard drives, and media tapes without any human intervention.
- Inventory control of small tools and manufacturing equipment, servers, and network routers.

<b>Chip Type:</b>	<b>Impinj Monza-4QT EPC Class 1 Gen 2</b>	
	<b>EPC Memory:</b>	96 bits extendable up to 128 bits
	<b>User Memory:</b>	512 bits
	<b>Data Retention:</b>	50 years
	<b>Write Endurance:</b>	100,000 cycles
<b>Mechanical:</b>	<b>Dimension</b>	38.5 x 14 x 3.5 mm
	<b>Face Material</b>	Polyester
	<b>Colour</b>	Blue & white
	<b>Weight</b>	2 g
<b>Electrical:</b>	<b>Operating Frequency</b>	865-868MHz, (902-928MHz also available on request)
	<b>Operating mode</b>	Passive (battery-less transponder)
<b>Ingress Protection:</b>	IP54	
<b>Thermal:</b>	<b>Storage Temp.</b>	-25°C to +85°C
	<b>Operating Temp.</b>	-25°C to +85°C
<b>Part Number:</b>	319V4	
<b>Options:</b>	<b>Available with:</b>	
	Other IC type and Frequency on request e.g. Monza-4D, Monza-4E	
	Other colour combination & material	
	Adhesive backing / hanging thread for easy mounting	
		Non-metallic application



Note: Tolerance applicable are **Length:**  $\pm 1\text{mm}$ , **Width:**  $\pm 0.5\text{mm}$  and **Thickness:**  $\pm 0.3\text{mm}$

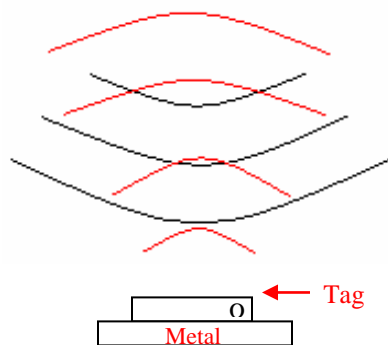
## Tag Placement

- ✚ M-Nano is polarized perpendicular to TTF logo.
- ✚ Place the tag in such a way that most of its bottom area comes in direct contact with metal.
- ✚ Ensure that there is no hindrance between the tag and the reader antenna.
- ✚ Reader antenna should be parallel to the length of tag as shown in below figure:

### Correct way



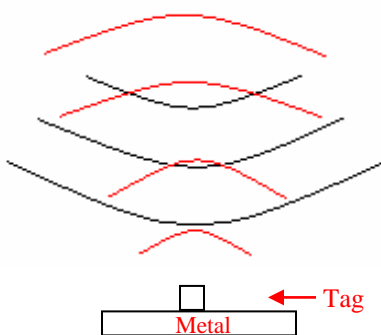
Antenna



### Wrong way

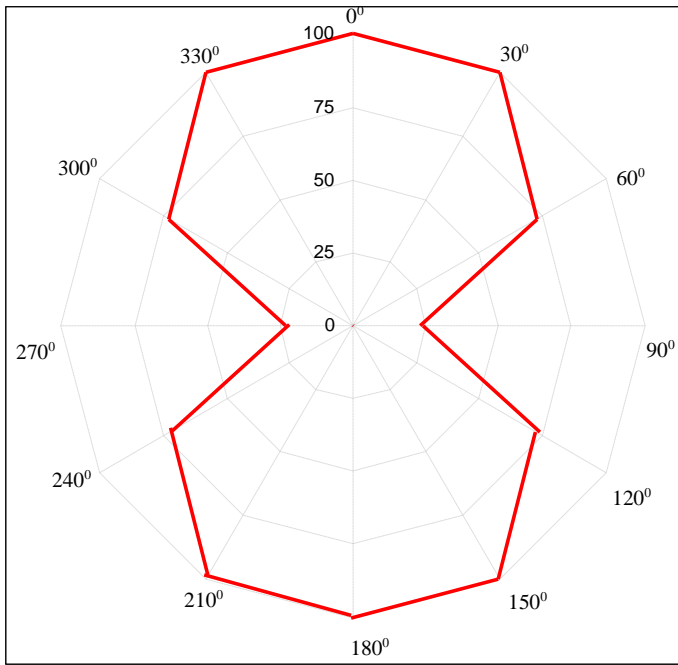


Antenna

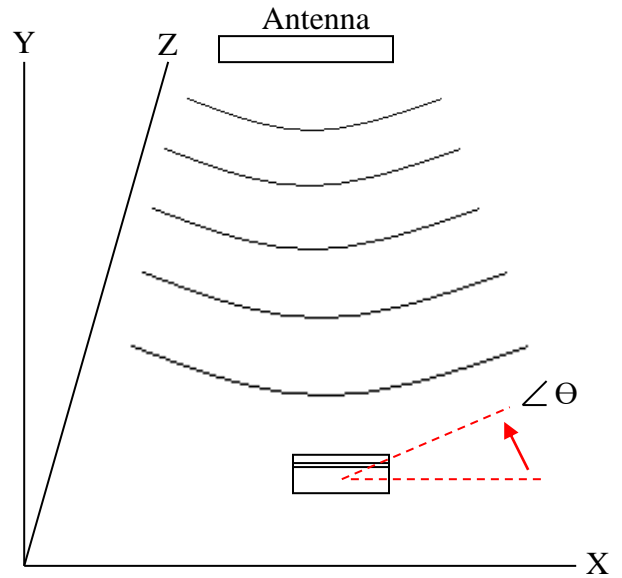


- ✚ Tag can be attached through adhesive tape or can be hanged through nylon thread.

**M-Nano Tag Angular Sensitivity**  
(Relative Read Range vs. Orientation)



Read range (in percent) at various angle.



Tag is rotated in the X-Y plane about the z axis