



M-Shield Tag

FEATURES

- M-Shield tag is operating effectively with read range of over 10m when attached to metal.
- Rugged construction for high durability.
- Can be attached by screws with the help of two holes.
- Can also be provided with Adhesive tape for easy attachment.

APPLICATIONS

- Due to high read range, M-Shield can be effectively used in asset tracking, Warehouse management, Containers and Railway Coaches identification.
- Factory automation, Automotive & Security purpose.

Chip Type:	Impinj Monza 4QT EPC Class 1 Gen 2	
	EPC Memory: 96 bits extendable up to 128 bits	
	User Memory: 512 bits	
	Data Retention: 50 years	
	Write Endurance: 100,000 cycles	
Mechanical:	Dimension	53 x 53 x 10mm
	Material	ABS
	Colour	Blue
	Weight	25 g
Electrical:	Operating Frequency	865-868MHz, (902-928MHz also available on request)
	Operating mode	Passive (battery-less transponder)
Ingress Protection:	IP67	
Thermal:	Storage Temp.	-25°C to +85°C
	Operating Temp.	-25°C to +85°C
Part Number:	317V6	
Options:	Available with:	
	Other IC type on request	
	Other plastic material and colours	
	Adhesive backing for easy mounting (indoor application)	



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

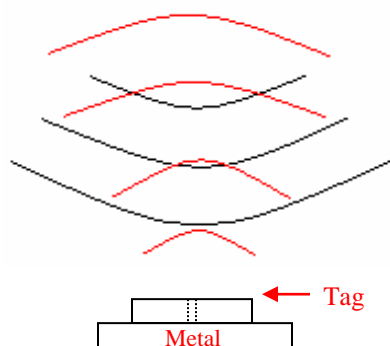
Tag Placement

- ✚ M-Shield 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 perpendicular to the axis of tag hole as shown in below figure:

Correct way



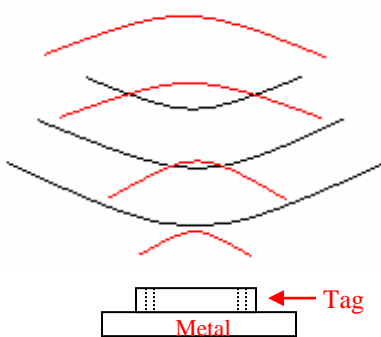
Antenna



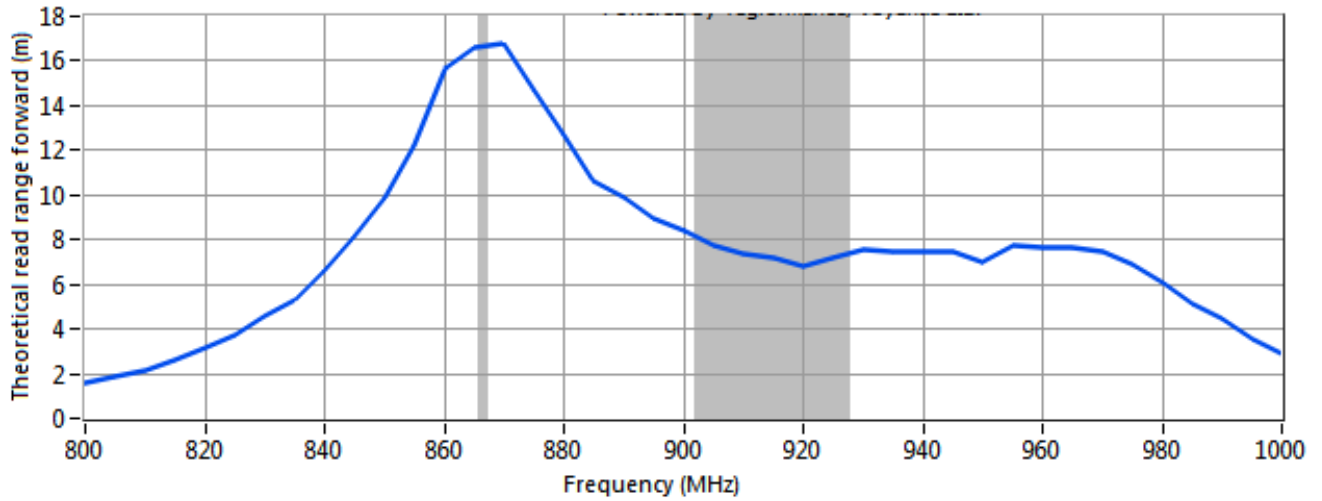
Wrong way



Antenna

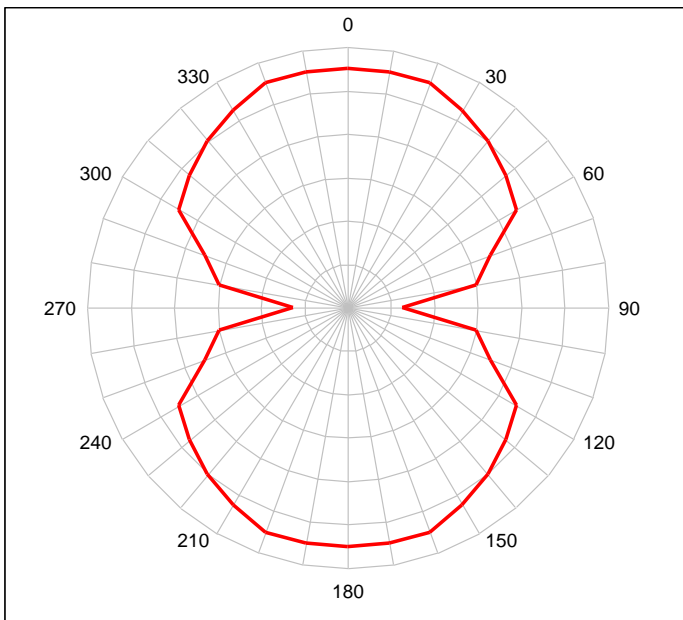


Frequency v/s Read Range Graph

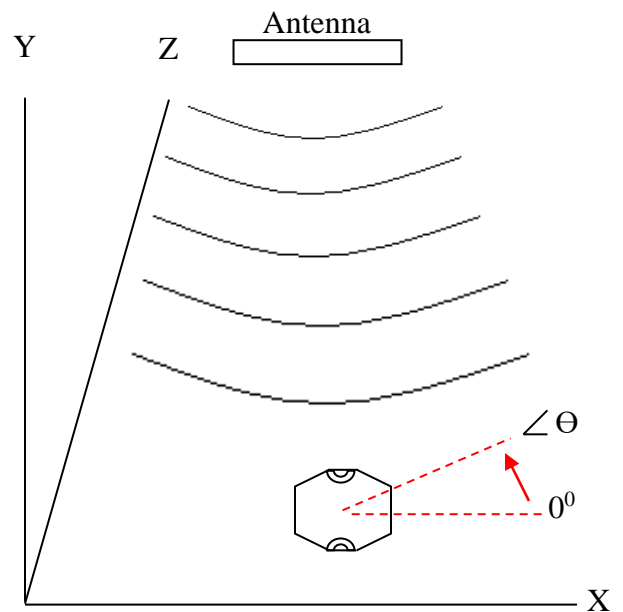


Angular Sensitivity

M-Shield 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