




M-Shield Tag

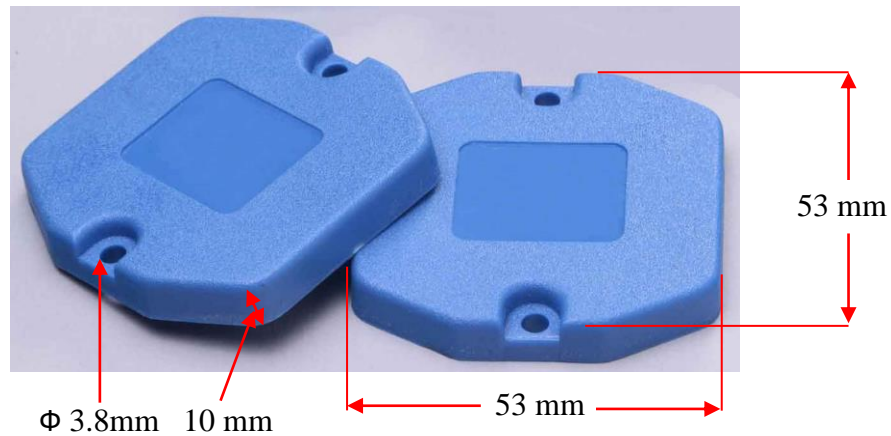
FEATURES

- M-Shield Tag is ATEX approved and thus can be used in potentially explosive atmosphere.
- The tag operates 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, Ware house management, Containers and Railway Coaches identification.
- Factory automation, Automotive & Security purpose.

Chip Type:	UHF Class 1 Gen 2, Impinj Monza 4QT	
	EPC 96 bit extendable up to 128 bits	
	User Memory 512 bit	
	Data retention of 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.	-20°C to +70°C
	Operating Temp.	-20°C to +70°C
Part Number:	317V1-Ex06	
Atex marking details:	 II 1 G, Ex ia IIC T5 Ga	
Options:	Available with:	
	Other IC type on request e.g. Monza 4D, Monza 4E	
	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: $\pm 0.3\text{mm}$

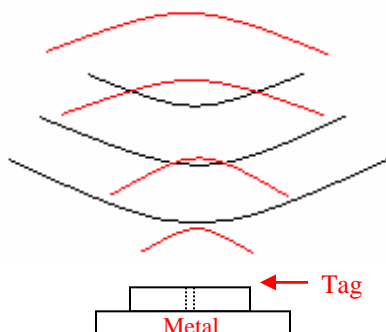
Tag Placement

- ✚ 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



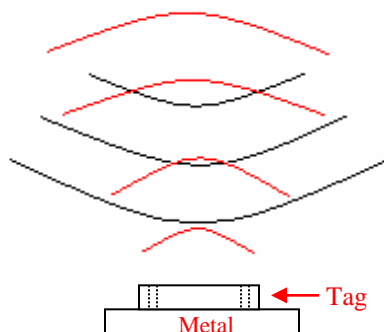
Antenna



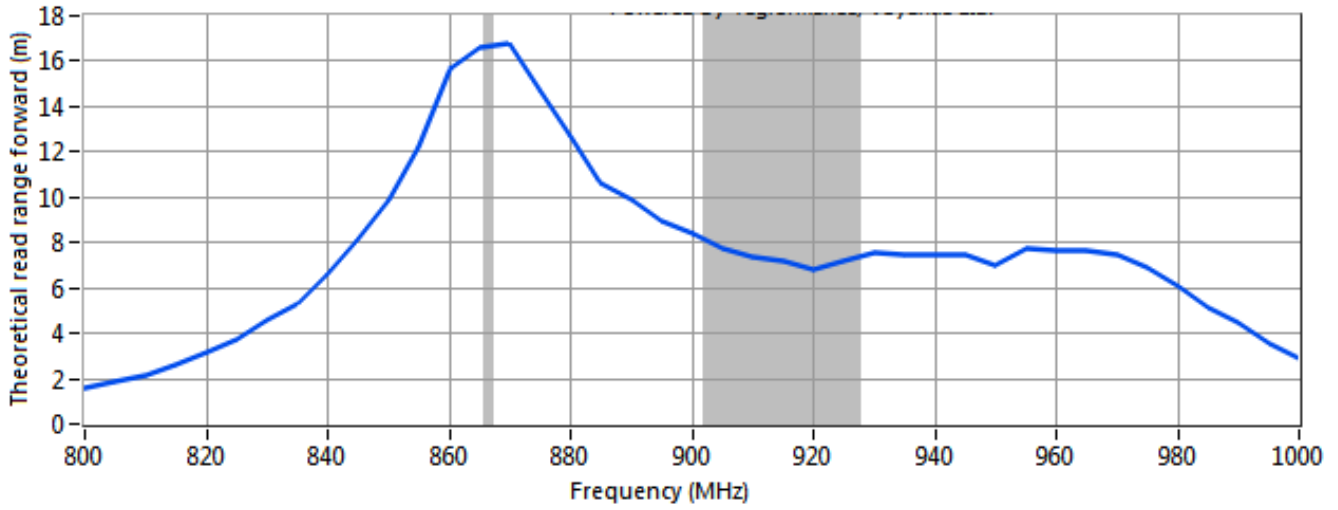
Wrong way



Antenna



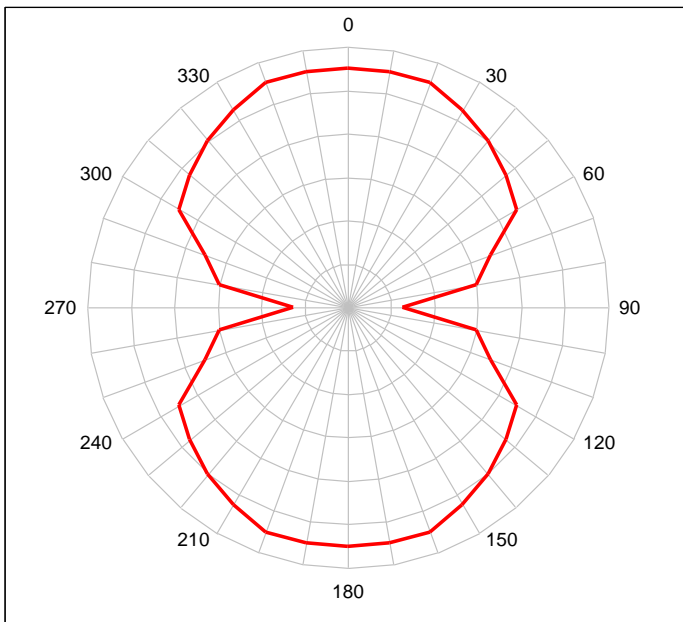
Frequency v/s Read Range Graph



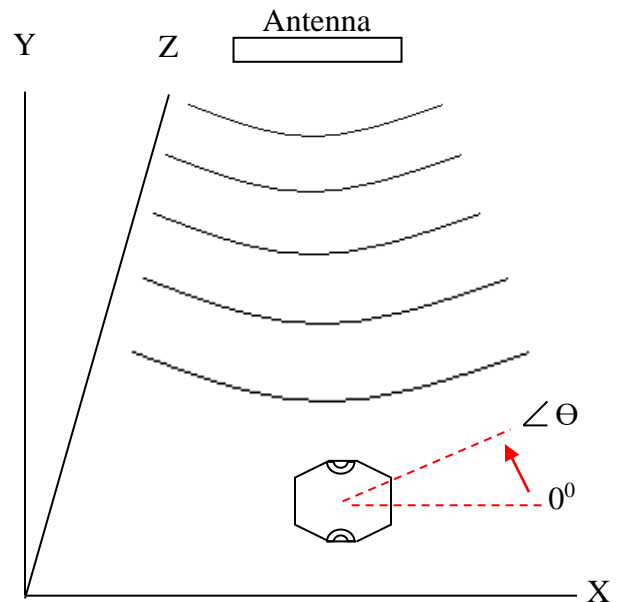
Angular Sensitivity

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