# Data Sheet

CE Ex

Jewellery Tag
Global

FEATURES

- Jewellery Tag is ATEX approved and thus can be used in potentially explosive atmosphere
- The tag is frequency independent and has a smooth surface for convenient labeling of price, material, style or other information.
- Very small and attractive in size & shape with multi read/write capability
- Dust & Waterproof
- Flexible Read/Write Range (reader dependant).
- Insensitive to almost all non metallic materials.

APPLICATIONS

- The Jewellery Tag is specifically designed to protect high value jewellery and small expensive accessories.
- Automatic tracking of Jewellery to market communities, secured storing and other areas.
- It can read hundreds of pieces of jewellery attached with RFID tags in seconds.
- Suitable for small form factor with longer read range capability is required including inside metal containers or computer equipment, etc.
- It is more effective to make an inventory of the jewellery.

| Chip Type:	**Alien Higgs 4 EPC Class 1 Gen 2**	
	EPC 96 bit extendable up to 128 bits	
	User Memory 128 bit	
	Data retention of 50 years	
	Write endurance 100.000 cycles	
Mechanical:	Length	40mm
	Width	20mm
	Thickness	3.0mm
	Material	ABS
	Colour	Blue
	Weight	2.0 gm.
Electrical:	Operating Frequency	860-928 MHz
	Operating mode	Passive (battery-less transponder)
Ingress Protection:	IP68	
Thermal:	Storage Temp.	-20°C to +70°C
	Operating Temp.	-20°C to +70°C
Part Number:	311Y2-Ex	
Atex Marking details:	Ex II 1 G, Ex ia IIC T5 Ga	
Options:	Available with:	
	Other IC type	
	Other plastic material and colours e.g. PC/ABS	
	Thread / Adhesive backing for easy mounting	

2.75mm 7.5mm

40 mm

20 mm
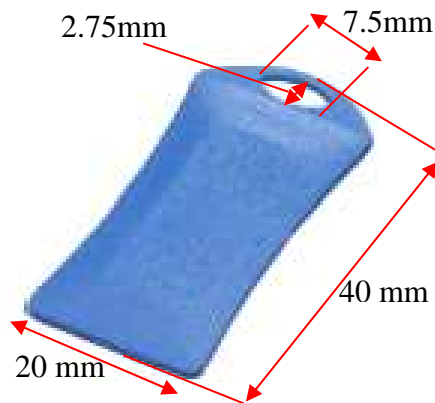
- Jewellery tag is polarized perpendicular to its length.
- Ensure that there is no hindrance between the tag and the reader antenna.
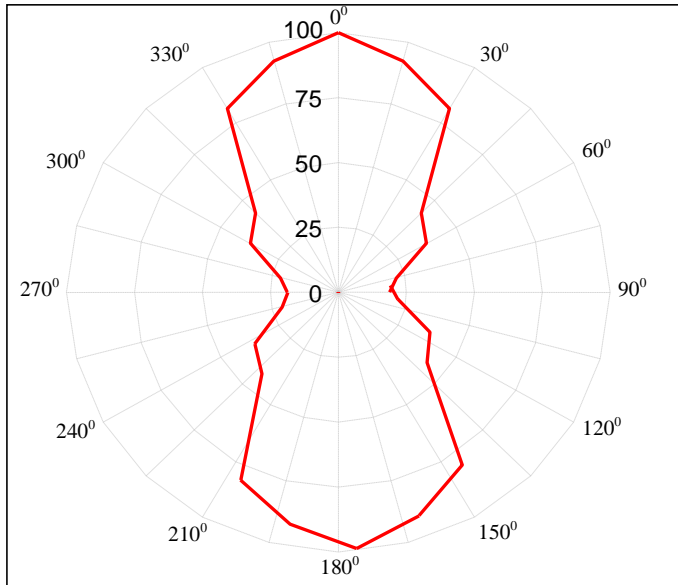- Reader antenna should be parallel to length of tag as shown in below figure:

Correct way

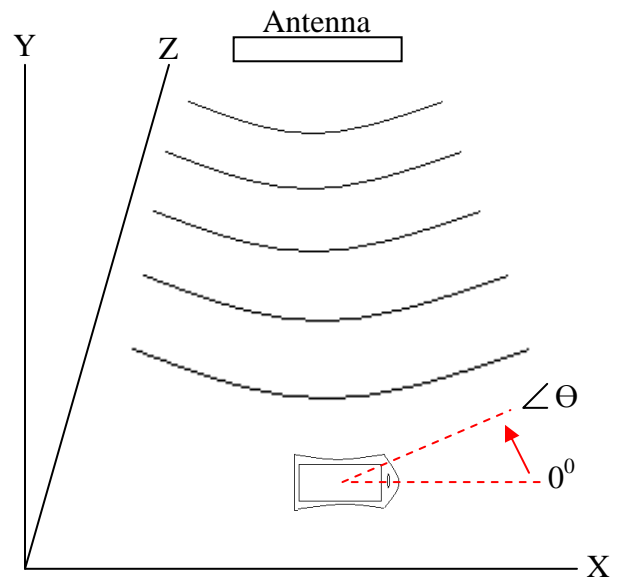

Antenna

← Tag

Wrong way

Antenna

← Tag
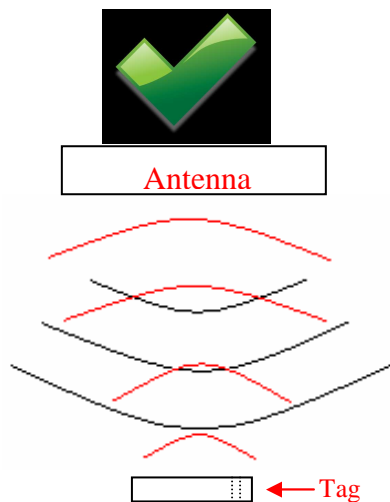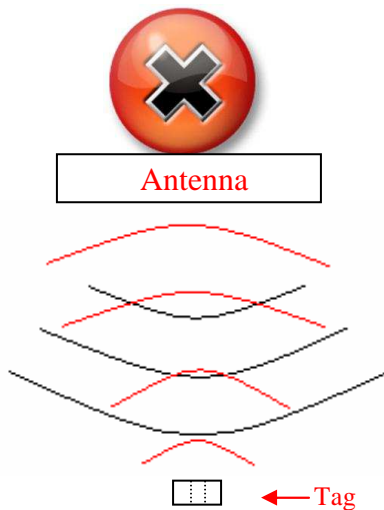
- Tag can be attached through Thread, Cable Ties or Adhesive tape.

Jewellery Tag Angular Sensitivity
(Relative Read Range vs. Orientation)

Y   Z   Antenna

∠Θ

0^0

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

Read range (in percent) at various angle.

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