



M-Crown (Max) Tag (3-in-1)

FEATURES

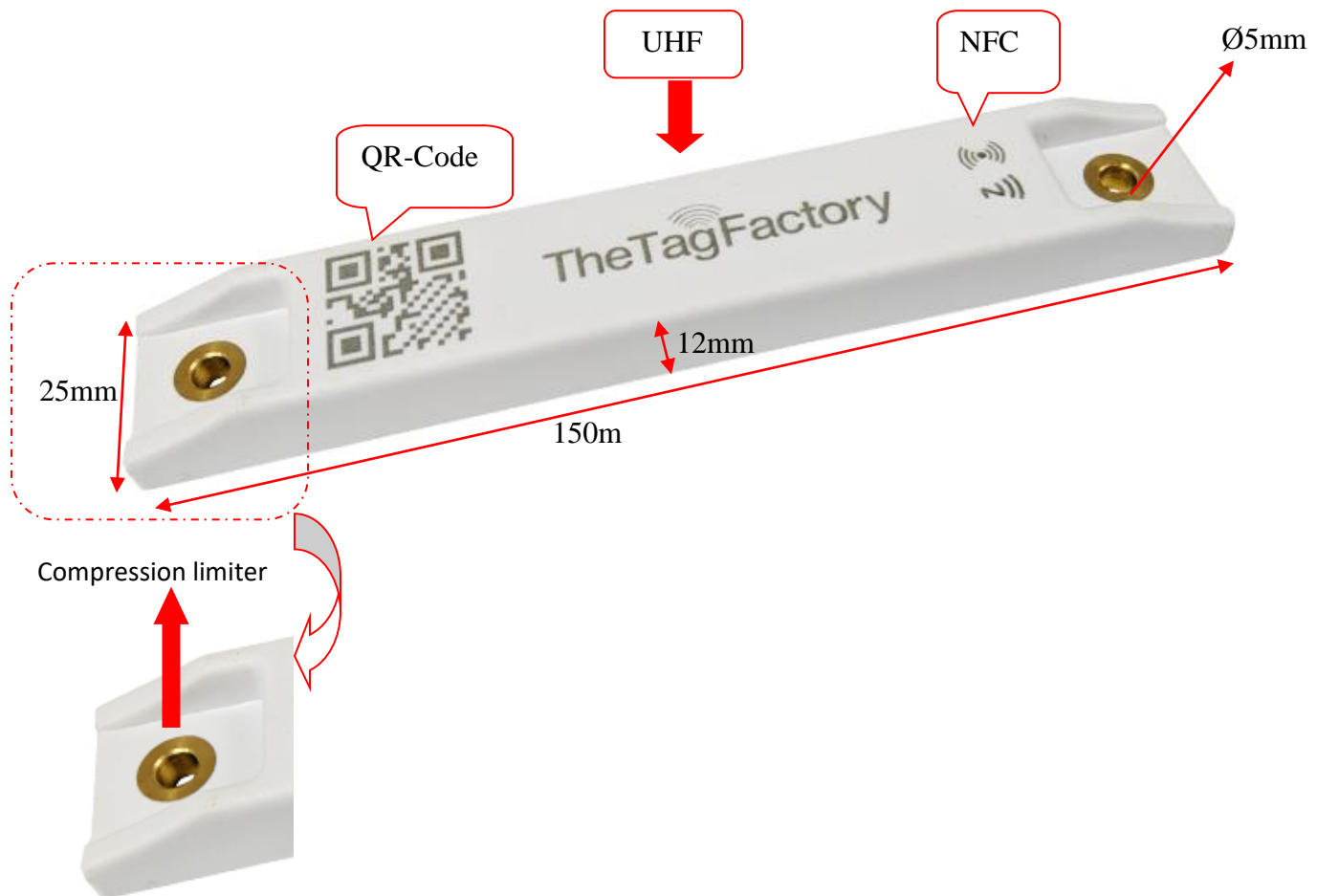
- 3 reading possibilities in single Tag
 - **UHF:** over 15m reading distance when tagged to metal substrate.
 - **NFC:** With any NFC enabled Smartphone.
 - **QR-Code:** With any Smartphone
- Rugged construction for high durability.
- Can be attached by screws/pop-nail with the help of two compression limiters.

APPLICATIONS

- Can be effectively used in asset tracking, warehouse management, containers, and railway coaches' identification.
- Factory automation, automotive & security purpose.

Chip Type:	Description	Alien Higgs 9 chip, EPC Class 1 Gen 2	NTAG213, 13.56 MHz
	EPC Memory:	Up to 496-EPC Bits (nominally 96 bits)	Fully compliant with NFC Forum Type 2 Tag and ISO/IEC14443 Type A specifications.
	User Memory:	688 bits	144 bytes user programmable read/write memory.
	Data retention:	50 years	10 years
	Write endurance:	200,000 cycles	100,000 cycles
Mechanical:	Dimension	150 x 25 x 12 mm	
	Material	ABS	
	Colour	White	
	Weight	32 g	
Electrical:	Operating Freq.	UHF: 865-868MHz, ETSI Freq. (Also available in FCC & Global frequency on request)	NFC: 13.56MHz
	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:	415Z1		
Options:	Available with:		
	Other IC type on request		
	Other plastic material and colours e.g., PC		
	Adhesive backing for easy mounting		

Dimension



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-Crown Tag is polarized perpendicular to length of tag.



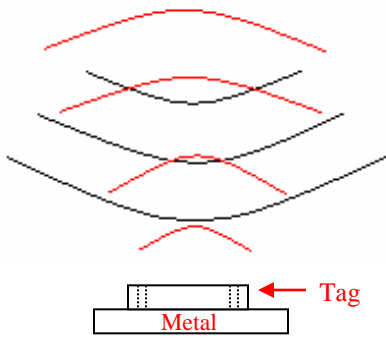
- ✚ Place the tag in such a way that most of its bottom area comes in direct contact with metal.
- ✚ Ensure that there is no hindrance between the tag and the reader antenna.

✚ Reader antenna should be parallel to the tag length as shown in the figure below:

Correct way



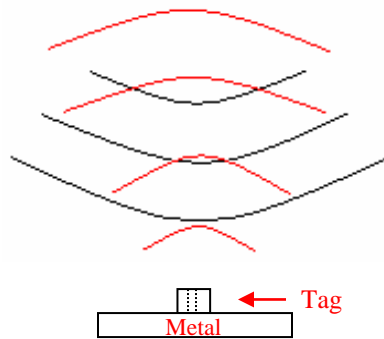
Antenna



Wrong way



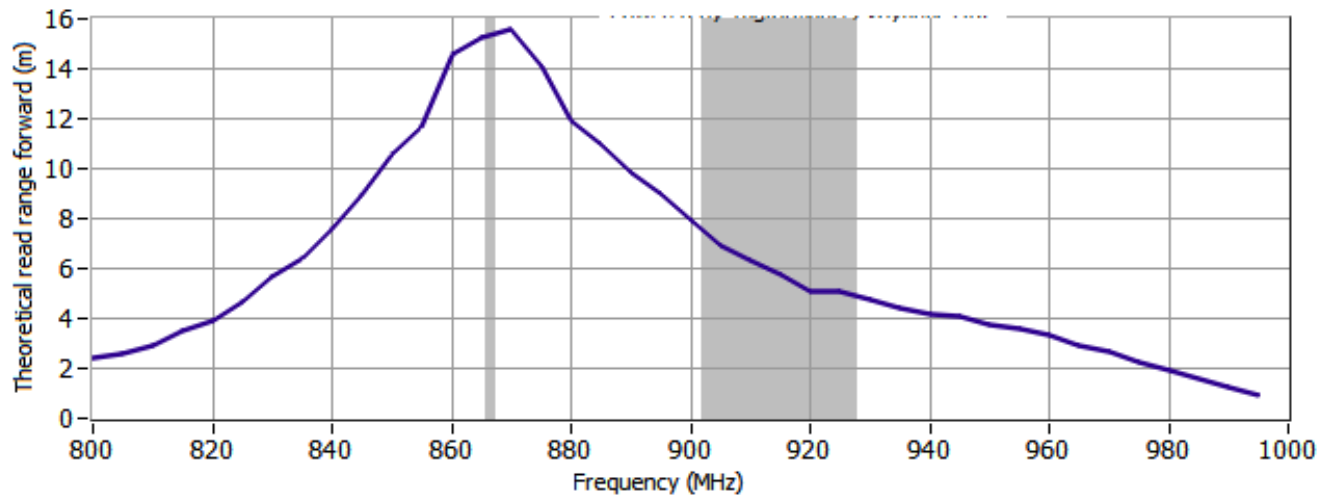
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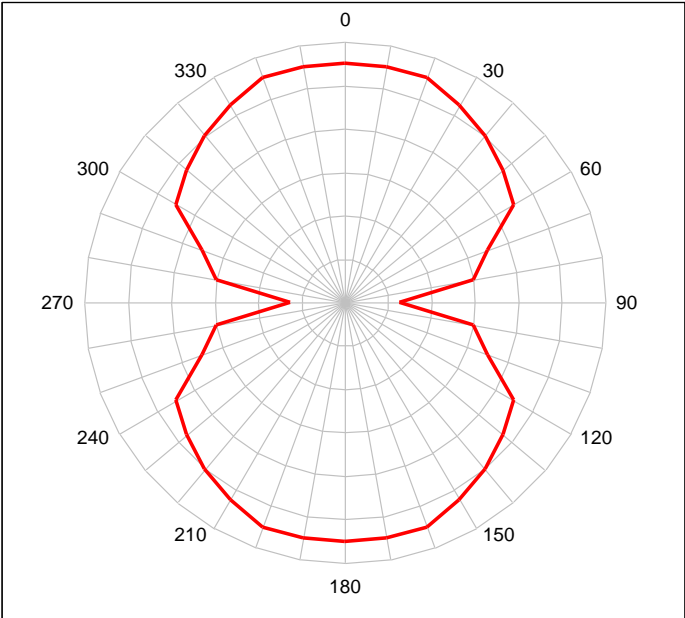
✚ Tag can be attached either through screw M4/M5 and adhesive tape.

✚ The distance between hole to hole is 126mm.

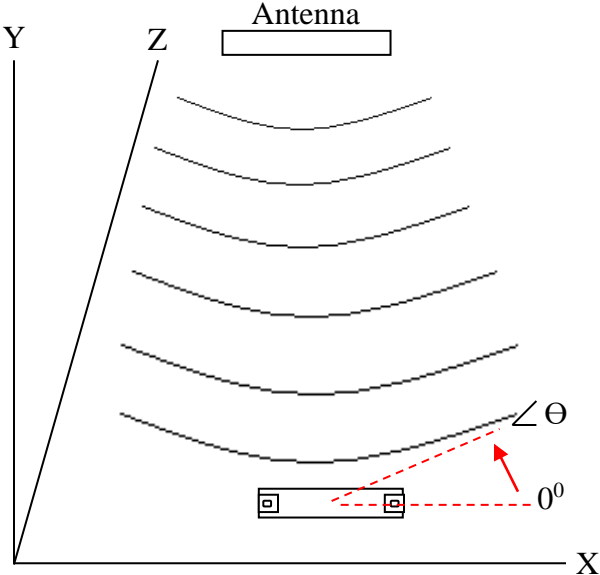
Frequency v/s Read Range Graph



M-Crown (Max) 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