

# SMART RFIDTAG



Ref: 42010164



With very small form factor this On-Metal and PCB based UHF RFID Tag is a perfect solution when application area is limited, especially for tools and other small items like hospital assets. It is also capable of withstanding high temperatures.

PHYSICAL SPECIFICATION	
Tag Material	FR4 (PCB)
Tag Dimensions	18x6mm, (Hole: D2mmx1), T 3.0mm without IC bump, 4.0mm with IC bump 0.708x0.236in, (Hole: D0.078inx1), T0.118in without IC bump, 0.157in with IC bump
Adhesive (Optional)	High performance permanent adhesive
Weight	1.2 gms
Delivery Format	Single Pieces

RF SPECIFICATION	
Mode of Operation	Passive
Device Type	Plastic Hard Tag
Air Interface Protocol	EPC Class1 Gen2, ISO18000-6C
Operational Frequency	ETSI: 865-868MHz FCC: 902-928MHz
IC Type	Alien Higgs 3
Memory Configuration	EPC 96bits (Up to 480bits) , USER 512bits, TID64bits
Write Cycle Endurance	100,000
Data Retention	Upto 50 years
Applicable Surface Materials	Metallic surfaces
Read Range (Fixed Reader)	ETSI : On metal up to 3 m FCC : On metal up to 4 m

# ENVIRONMENTAL RESISTANCE

Operating Temperature	-40°C to +100°C / -40°F to +212°F
Withstands Exposure To	-40°C to +150°C / -40°F to 302°F
Peak Temperature	+150°C / +302°F
Adhesive Service Temperature	-40°C to +100°C / -40°F to +212°F
Recommended Application Temperature	+10°C to +38°C / 50°F to +100.4°F
Water Resistance (IP Rating)	IP68
Ideal Storage Condition	-40°C to +150°C / -40°F to 302°F
Expected Lifetime	Years in normal operating conditions

## PRODUCT INSTALLATION



The tag can be attached to the surface using the following fixing methods

- **Adhesive:**  
The tag is delivered with an optional high-performance adhesive. While mounting the tag ensure clean and dry surface to achieve maximum bond strength. Ideal application temperature is from +10°C to 38°C / +50°F to +100.4°F and installation beyond this temperature range is not recommended. Bond strength can be improved by applying pressure firmly while mounting the tag.
- **Mechanical Fixing:**  
Achieved by using a screw and is recommended for environments that involve high mechanical stress. During fixing make sure there is no air gap left in between the metal surface and tag.

## PERSONALIZATION OPTIONS

### Pre-encoding

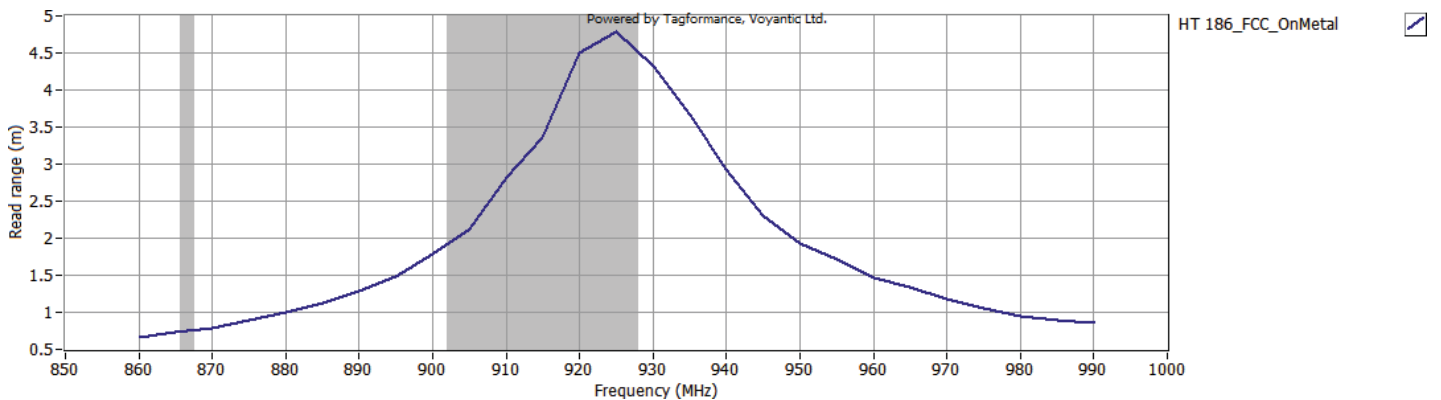
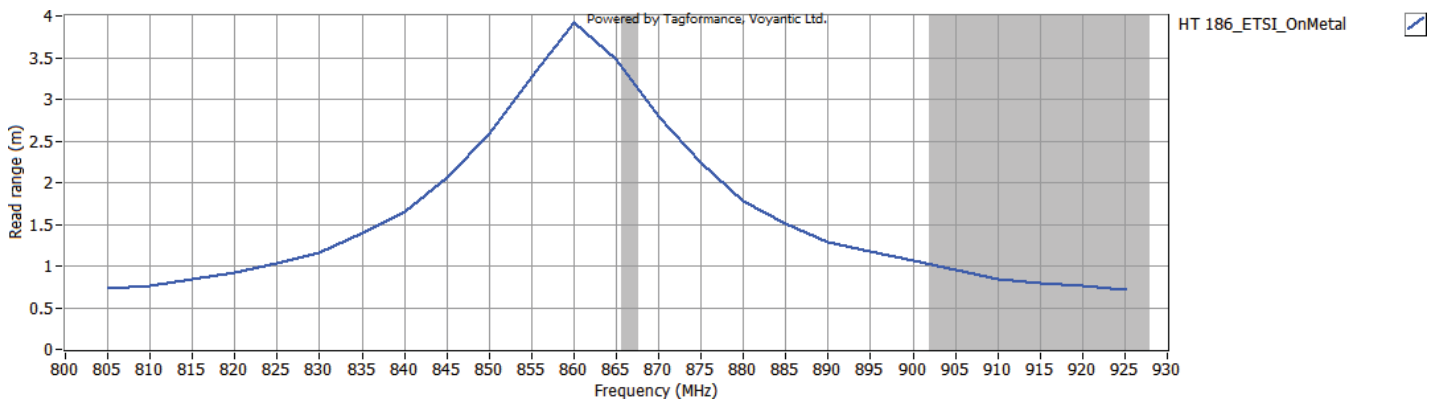
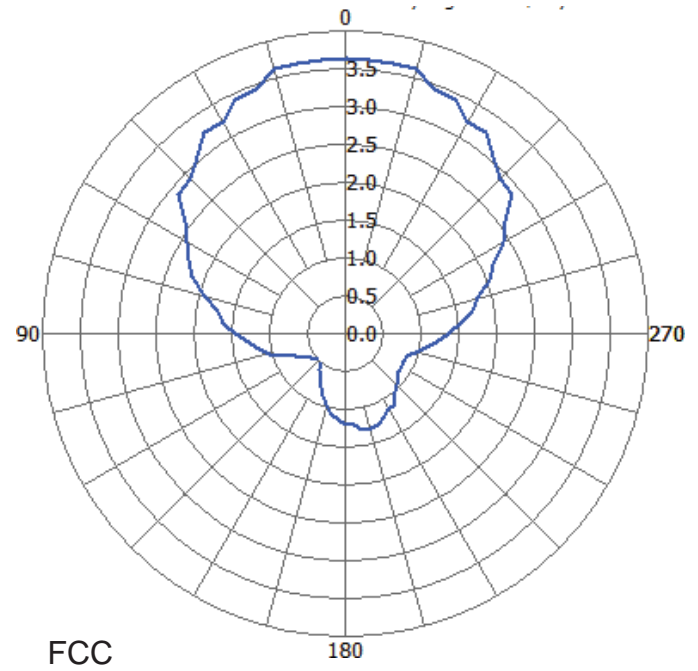
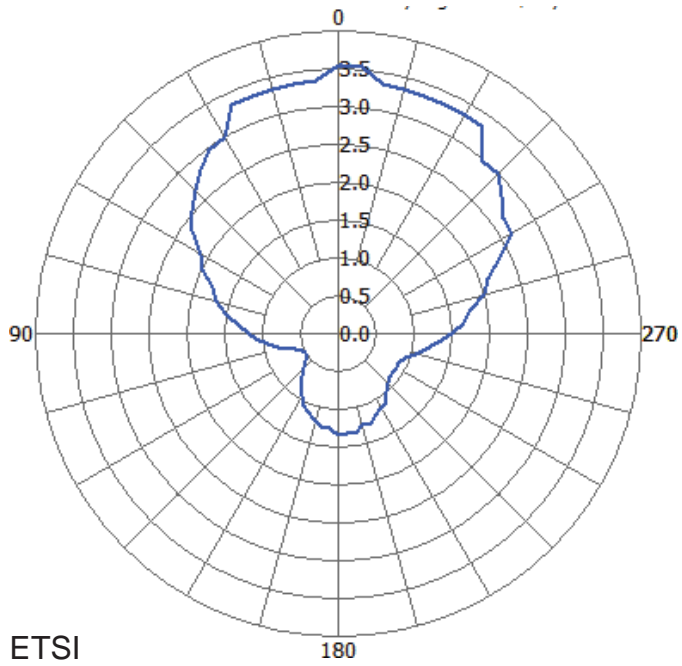
- Customer specific encoding of EPC

## ORDER INFORMATION

### Part Number

- 42010164

# RADIATION PATTERN & READ RANGE GRAPH (ETSI & FCC)



\*\*The indicated read range values are measured in our laboratory testing environment, where antennas with optimum directivity are used with maximum allowed operating power. Different surface materials and environments may exhibit different results.



Version : 061119 .02