



Rhino HT 10431 is a slim, high-performance RAIN (UHF) RFID tag for assets tracking and management. Though the tag is optimised for metallic objects, it also performs well on non-metallic objects. Slots in the tag body make it possible to fix securely or hang on rounded pipes, cables or other objects where tag fixing using adhesive is not feasible.

### TYPICAL APPLICATIONS

#### Metal surfaces and other materials

- IT and office assets
- Hospital assets
- Hotel assets
- Tools tracking
- Room location tag

### PHYSICAL SPECIFICATION

Tag Material	Engineering plastic, Synthetic face film
Tag Dimensions	104.0 x 31.0 x 4.0 mm
Weight	11.3 g
Delivery format	Single
Background Adhesive	High performance acrylic adhesive

### RF SPECIFICATION

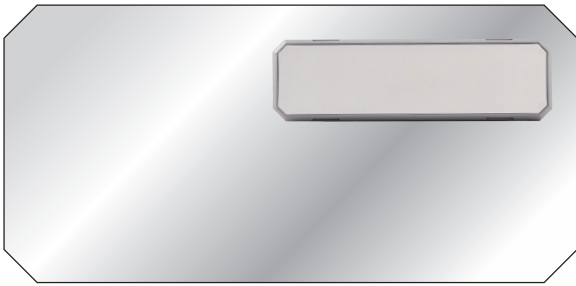
Mode of Operation	Passive
Device type	Plastic Hard Tag Passive UH F RFID Transponder
Air interface protocol	EPC Global Class 1 Gen 2 ISO 18000-6C
Operational frequency	ETSI : 865-869 MHz FCC : 902-928 MHz
IC type*	NXP UCODE 8
Memory configuration	EPC Size 128 bit, 96 bit TID with 48 bit Unique serial number
Write cycle endurance	100,000
Data Retention	upto 20 years
Read range (2W ERP)**	ETSI : On Metal 8 m, On Plastic 6.6 m, On Wood 11.5 m FCC : On Metal 10 m, On Plastic 9.5 m, On Wood 13 m
Applicable surface materials	All Surface

# ENVIRONMENTAL RESISTANCE

Operating Temperature	-40°C to +85°C / -40°F to +185°F
Withstands Exposure To	-40°C to +80°C / -40°F to +176°F
Peak Temperature	+80°C / +176°F
Adhesive Service Temperature	-40°C to +115°C / -40°F to +240°F
Recommended Application Temperature	+10°C to 38°C / +50°F to +100.4°F
Chemical Resistance	No physical or performance changes in: - 168 h Salt water (salinity 10%) exposure - 168 h Motor oil exposure - 12 h NaOH (10%) exposure - 30 min Acetone exposure
Water Resistance	IP68, Tested 5 hours in 1.5m deep water
Ideal Storage Condition	+23°C / +73.4°F , 50% RH
Expected Lifetime	Years in normal operating conditions

## PRODUCT INSTALLATION

Attach the tag in close proximity to edge of metal for optimum read range performance, as shown in the image below.



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

- **Adhesive:**  
The tag is delivered with an adhesive tape attached. 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.
- **Cable Tie:**  
Metallic or plastic cable ties can also be used to mount the tag onto the surface.

## PERSONALIZATION OPTIONS

### Pre-encoding

- Customer specific encoding of EPC

### Customized Laser Engraving

- Customer specific layout including logo, text, and numbers.

## ORDER INFORMATION

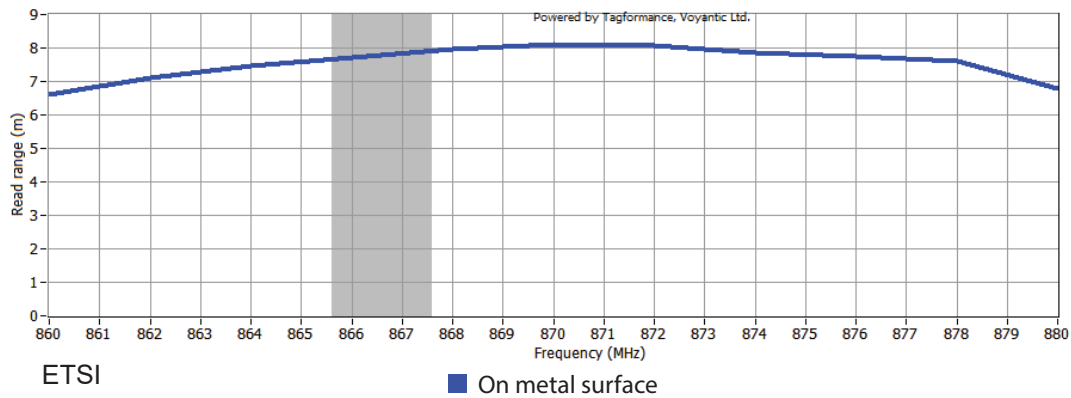
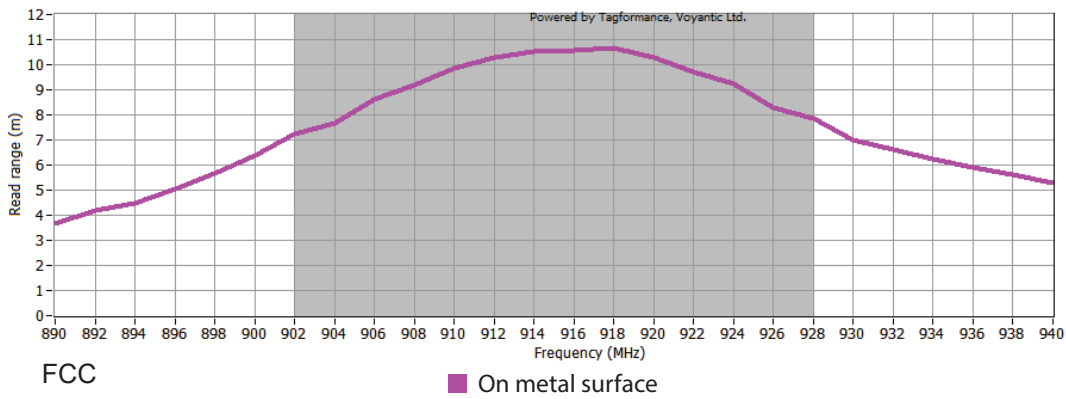
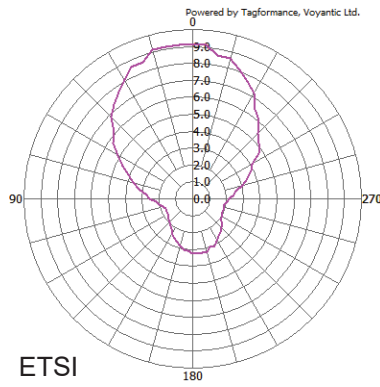
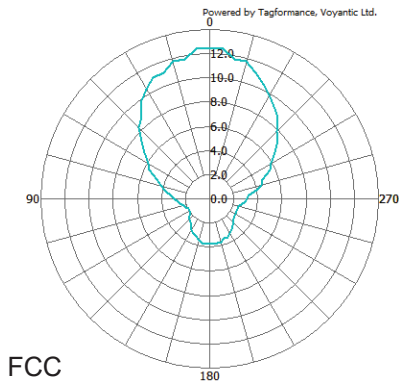
### Part Number

- RF.HT.10431.ETSI
- RF.HT.10431.FCC

### No. of Pieces

- 250 per box.

# RADIATION PATTERN & READ RANGE GRAPH



\* Other IC's available on request

\*\* 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.



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