

# RHINO SERIES TAGS

## HT 5050 DUO FRE



Dual frequency rugged hard tag providing long-range UHF functionality alongside NFC interface for customer engagement. Shared memory between both UHF & NFC makes data handling effortless. Optimised to perform on metal, featuring brass inserts that withstand heavy duty riveting. Laser engravable with optional adhesive backing.

## PHYSICAL SPECIFICATION

Face Stock  
ABS

### Tag Sizes

50 x 50 x 11.6 mm (tolerance  $\pm 1$ mm) |  
Hole Dia: 5.5mm 1.97 x 1.97 x 0.39 inch | Hole Dia: 0.22 in

### Adhesive (optional)

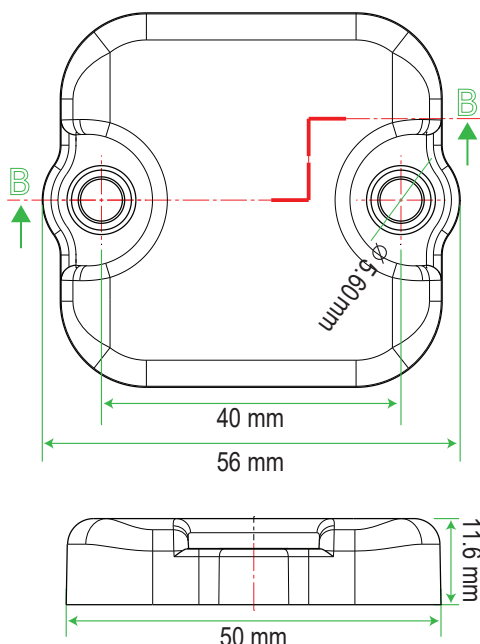
High performance permanent adhesive with excellent bonding to a variety of substrates.

### Delivery Format

Single pieces

### Weight

34.63 g



## RF SPECIFICATION

### Air interface protocol

SO/IEC 18000-63, RAIN RFID/ EPCglobal Gen2v2  
ISO/IEC 15693, NFC Forum Type 5

### Operational frequency

Global 865-928 MHz & 13.56 MHz

### IC type\*

EM4425

### Memory configuration

Shared unique IC serial number included in:

- 64-bit UID (HF)
- 96-bit TID (UHF)

Configurable 2048-bit memory used for:

- HF User memory
- Up to 480-bit EPC/UID encodings
- UHF User memory

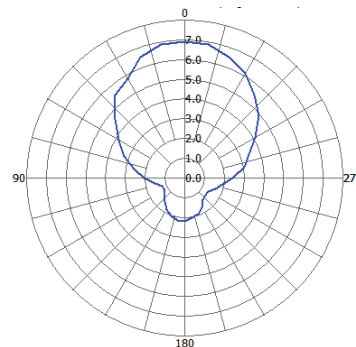
### Read range (2W ERP)\*\*

On Metal Up to 4.5m/ 14.76ft

### Applicable Surface Materials

Metallic surfaces

## RADIATION PATTERN



## ENVIRONMENTAL RESISTANCE

### Operating Temperature

-40°C to +85°C / -40°F to 185°F

### Application Temperature

+10°C to +38°C / 50°F to +100.4°F

### Vibration Resistance

JESD22-B103B, service condition 2; vibration that is aligned with tag thickness (z-axis)

### IP Classification

IP68

### Chemical Resistance

No Physical or performance changes in:

- 168 h Saltwater (salinity 10%) exposure
- 168 h Motor oil exposure
- 12 h NaOH (10%) exposure
- 30 min Acetone exposure

### Ideal Storage Condition

1 year in +23°C / 73.4°F, 50% RH

### Expected Lifetime

Years in normal operating conditions

## PERSONALISATION OPTIONS

### Pre-encoding

- Customer specific encoding of EPC memory

### Customized Laser Engraving

- Customer specific artwork including logo & text, numbers, barcodes etc.

## ORDER INFORMATION

### Part Number

RF.HT.5050.DF.EM

### Packaging

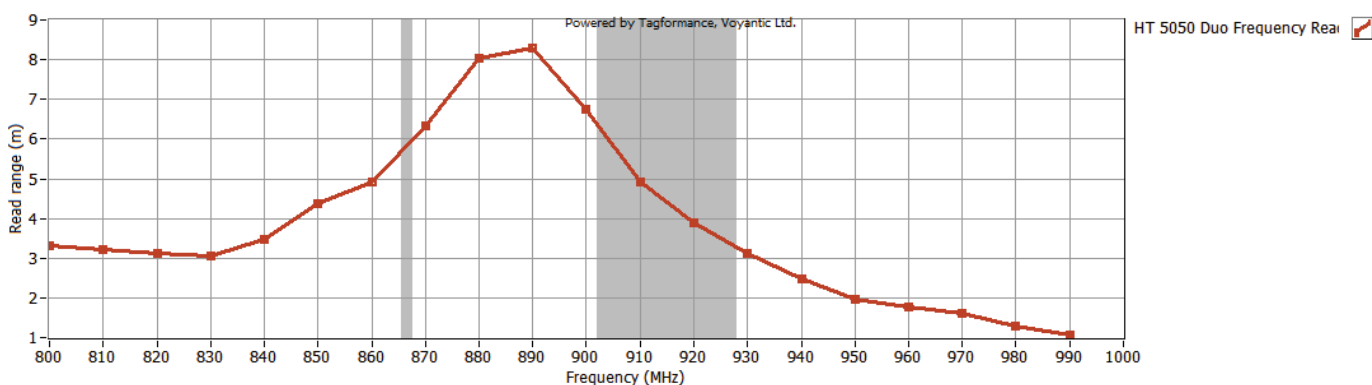
100 Per/Box;  
4 Inner/Outer

## PRODUCT INSTALLATION



- Adhesive: The tag is delivered with an optional 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.
- Mechanical Fixing: Achieved by using a screw or a pop rivet and is a 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.
- Cable Tie: Metallic or plastic cable ties can also be used to mount the tag onto the surface.

## 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.