



MAXDURA® CERAMIC

Small and Durable to Embed in Metallic Parts

Smartrac MAXDURA® CERAMIC has been designed to embed into tiny notch of metallic parts and components and thus to achieve best read performance in metallic environments. Its small size makes it an ideally suited form factor for IT asset tracking such as backup tapes, servers, network routers, hard drives and media tapes without any human intervention. Moreover, it fits applications for inventory control, track and trace of small tools and manufacturing equipment.

This RAIN RFID (UHF) hard tag, member of Smartrac's MAXDURA product family is a passive, battery-less transponder equipped with Alien Higgs-3 IC, including 512-bit user memory. It offers a flexible read/write range depending on the reader.

MAXDURA CERAMIC housing is made of ceramic, encased with durable black paint and fulfills ingress protection IP68. It is available in four sizes from 5 × 5 mm to 25 × 25 mm. and it can be easily fixed with adhesive tape.

MAXDURA CERAMIC small sizes and durable housing structure makes the product well suited to tap the benefits of passive RFID for different industrial applications.

Overview

Operating Frequency

865-868 MHz (ETSI)

902-928 MHz (FCC)

Integrated Circuit (IC)

Alien Higgs 3

Material and Color

Ceramic, Black

International Standards

- ▶ EPC Class 1 Gen 2
ISO 18000-6C

Application Areas

- ▶ Industry
- ▶ Supply Chain &
Asset Management

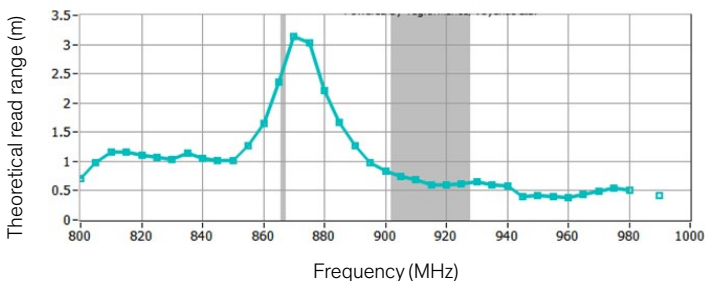
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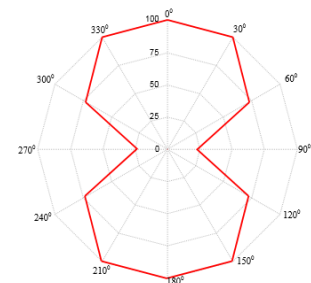
Technical Features				
IC + Memory*	Alien Higgs-3, EPC 96 bit extendable up to 480 bits 512 bit user memory Data retention of 50 years, Write endurance 100,000 cycles			
Tag Size (LxWxT)	5 × 5 × 3 mm ±0.5 mm	10 × 5 × 3 mm ±0.5 mm	25 × 9 × 3 mm ±0.5 mm	25 × 25 × 3 mm ±0.5 mm
Weight	0.4 g	0.9 g	3.6 g	8.6 g
Materials & Color	Ceramic with black paint Adhesive backing for easy mounting			
Operating Temperature	-40°C to +85°C			
Storage Temperature	-40°C to +150°C			
IP Class	IP68			
Qty/Package	2,000 pcs. / MOQ 4,000			

* Additional memory, protocol and product configurations are available upon request.

Frequency v/s Read Range



Relative Read Range vs. Orientation



Read range (%) at various angle

All the graphs are indicative and are exemplary for MAXDURA CERAMIC 5x5 mm; performance in real life applications may vary.

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