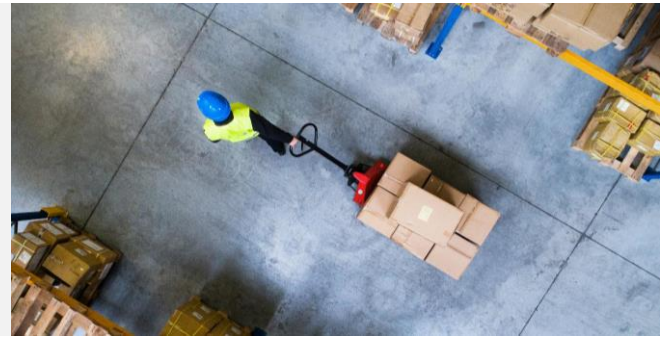


# RANGER Family

## RA9508 – U8



### Overview

#### Application Area

Paragon ID Ranger Family of inlays are designed to function in a wide range of industrial applications that require long read distances in combination with the use of the inlay on many different materials

#### IC

The RA9508-U8 UHF inlays are based on the NXP UCODE 8 Serie RAIN ICs with antenna designs supporting all global frequencies, including FCC and ETSI.

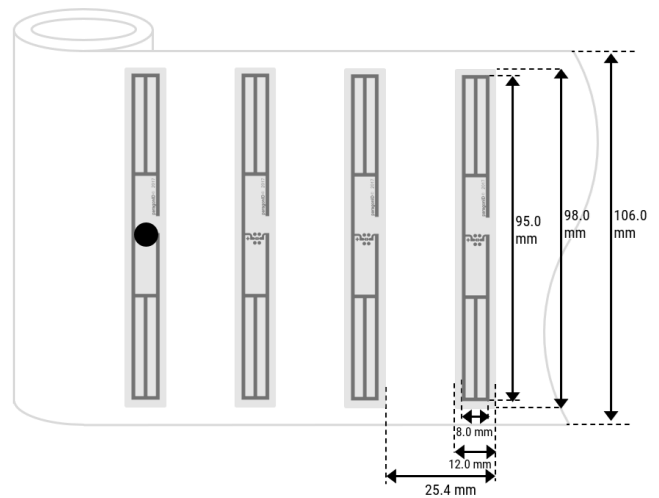
#### Paragon ID

Paragon ID is the largest EU based RFID inlay and label manufacturer with production facilities in Argent, France and Bucharest, Romania.

### Inlay specifications

<b>Standards</b>	EPC Class1Gen2 V2 / ISO 18000-63
<b>Certificates</b>	Not applicable
<b>Antenna size</b>	95 x 8 mm / 3.74 x 0.31 in
<b>Antenna orientation</b>	Wide edge leading (WEL)
<b>Substrate</b>	PET 50 µm
<b>Antenna material</b>	Aluminium, 10 µm
<b>Adhesive</b>	Permanent
<b>Backing</b>	Silicon paper
<b>Minimum Yield</b>	98% or higher, 2 splices or less per roll
<b>Quality assurance</b>	100 % performance tested*
<b>Marking</b>	Failed units marked
<b>Shelf life</b>	Two years from date of manufacturing when stored at 20 °C and <40% relative humidity

### Dimensions



### IC specifications

<b>Manufacturer</b>	NXP
<b>Model and Memory</b>	U8: 128 bits EPC U8m: 96 bits EPC, 32 bits User
<b>TID memory</b>	96 bits, with 48 bits serial number
<b>Read Sensitivity</b>	-23,0 dBm
<b>Write Sensitivity</b>	-18,0 dBm
<b>Operating Temperature</b>	-40°C up to +85°C -40°F up to +185°F

\* Bad inlay can either be non-functional or show lower performances than expected

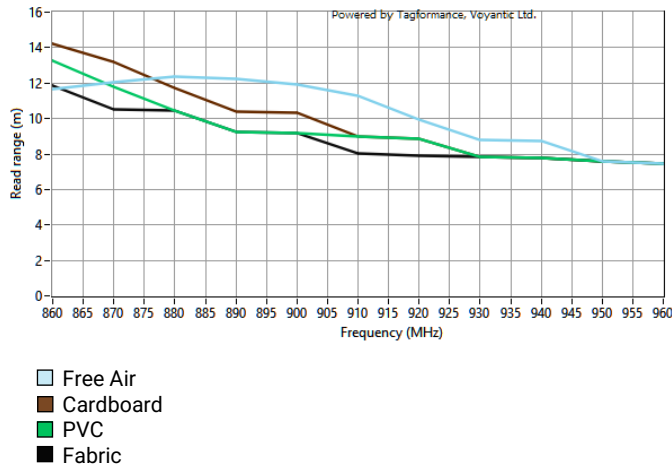


# RANGER Family

## RA9508 – U8

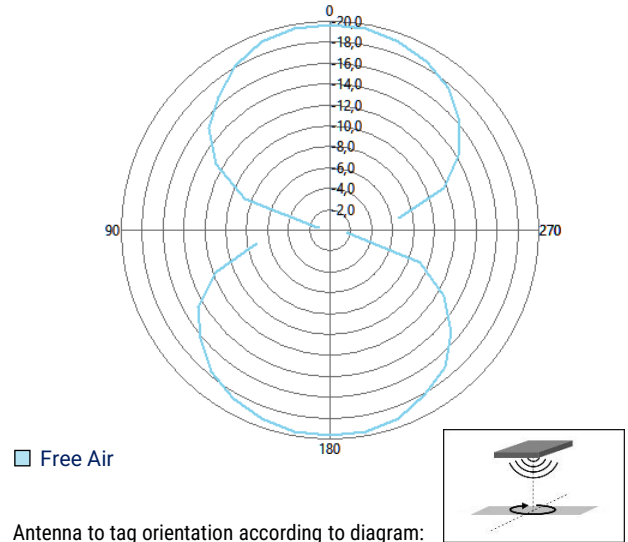


### Theoretical read range



All graphs are generated under laboratory conditions. Real-life performance may vary. Reader power : 29 dBm. Antenna sensitivity : -70 dBm

### Orientation sensitivity



### Delivery information

	Delivery Format		
	Dry Inlay (2)	Wet Transparent Inlay	Paper-face Inlay
<b>Chip</b>	U8 (3)	U8	U8
<b>Sales Codes</b>	126048	126845	134108
<b>Antenna size</b>	95 x 8 mm / 3.74 x 0.31 in	95 x 8 mm / 3.74 x 0.31 in	95 x 8 mm / 3.74 x 0.31 in
<b>Die-cut size</b>	N/A	98 x 12 mm / 3.86 x 0.47 in	98 x 12 mm / 3.86 x 0.47 in
<b>Standard Pitch</b>	25.40 mm / 1.00 in	25.40 mm / 1.00 in	25.40 mm / 1.00 in
<b>Web width</b>	108.5 mm / 4.27 in	106 mm / 4.17 in	106 mm / 4.17 in
<b>Core inner diameter</b>	76 mm / 2.99 in	76 mm / 2.99 in	76 mm / 2.99 in
<b>Quantity per roll (1)</b>	20 000	10 000	5 000

(1) Quantity per Roll values are nominal with up to +/- 2% variation  
 (2) Delivered with disposable compensation layer (interleaves)



To ensure this product meets application requirements, this product should be tested under conditions appropriate to the application. Paragon ID does not warrant that this product is fit for any particular use or purpose. The information provided in this datasheet is believed to be reliable to our current experience and knowledge, no rights however can be derived from the information provided in this datasheet. Paragon ID reserves the right to change or discontinue product offerings at any time without notice.

