

# EXPLORER Family

## EX4216 –U9



### Overview

#### Application Area

Paragon ID EXPLORER Family of inlays are optimally designed for global item level Retail inventory management, Brand Protection and Supply Chain applications

#### IC

The EX4216-U9 UHF inlays are based on the NXP Ucode 9 RAIN ICs with antenna designs supporting all global frequencies, including FCC and ETSI.

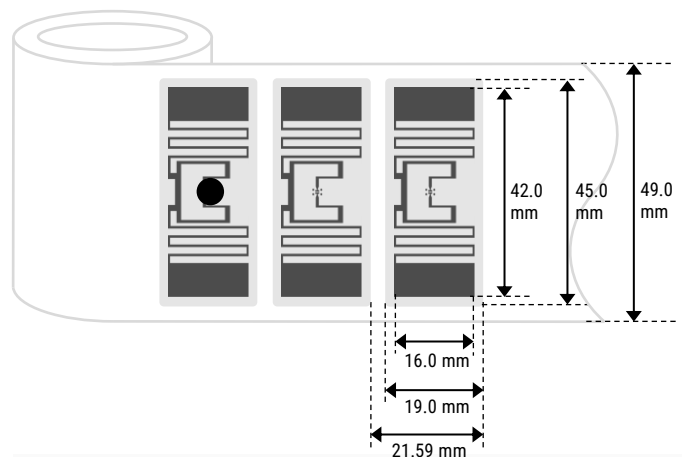
#### Paragon ID

Paragon ID is the largest EU based RFID inlay and label manufacturer with production facilities in Argent, France and Bucharest, Romania. Inlays are manufactured according to the highest ARC approved quality standards

### Inlay specifications

<b>Standards</b>	EPC Class1Gen2 V2.1 / ISO 18000-63
<b>Certificates</b>	ARC Spec F, O, Q, W5, W6
<b>Antenna size</b>	42 x 16 mm / 1.65 x 0.63 in
<b>Antenna orientation</b>	Wide edge leading (WEL)
<b>Substrate</b>	PET 50 µm
<b>Antenna material</b>	Aluminum, 10 µm
<b>Adhesive</b>	Permanent
<b>Backing</b>	Silicon paper
<b>Minimum Yield</b>	99% for dry inlays 98% for wet transparent & paperface inlays
<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>	Ucode 9: 96 bits EPC
<b>TID memory</b>	96 bits, with 48 bits serial number
<b>Read Sensitivity</b>	-24.0 dBm
<b>Write Sensitivity</b>	-22.0 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

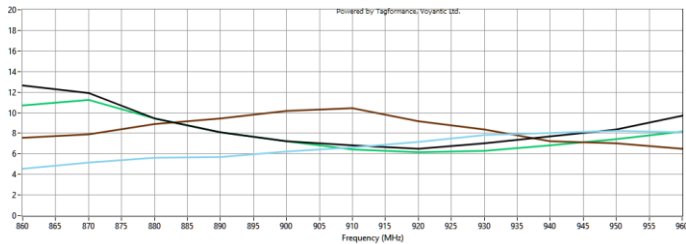


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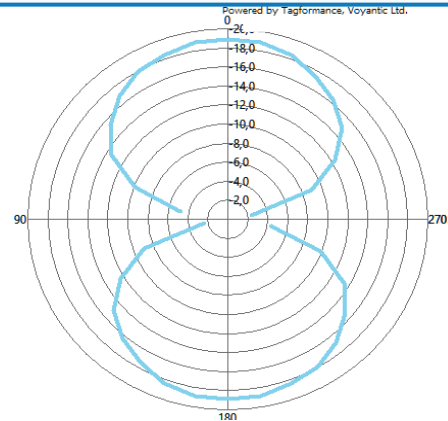
### Theoretical read range



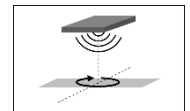
Free Air  
Cardboard  
PVC  
Fabric

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

### Orientation sensitivity



Free Air



Antenna to tag orientation according to diagram:

### Delivery information

	Delivery Format		
	Dry Inlay (2)	Wet Transparent Inlay	Paper-face Inlay
Chip	Ucode 9	Ucode 9	Ucode 9
Sales Code	135431	135551	135552
Antenna size	42 x 16 mm / 1.65 x 0.63 in	42 x 16 mm / 1.65 x 0.63 in	42 x 16 mm / 1.65 x 0.63 in
Die-cut size	N/A	45 x 19 mm / 1.77 x 0.75 in	45 x 19 mm / 1.77 x 0.75 in
Standard Pitch	21.59 mm / 0.85 in	21.59 mm / 0.85 in	21.59 mm / 0.85 in
Web width	49 mm / 1.93 in	49 mm / 1.93 in	49 mm / 1.93 in
Core inner diameter	76 mm / 2.99 in	76 mm / 2.99 in	76 mm / 2.99 in
Quantity per roll (1)	40 000	25 000	5 000

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



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