

### Inlay Features

- EPC Class1 Gen2 compliant
- Compact dipole configuration
- Long read range
- Innovative design for excellent performance and orientation insensitivity
- Designed to work in environment with high density of tags
- Fits in medium sized paper labels
- Supports Impinj Monza dies

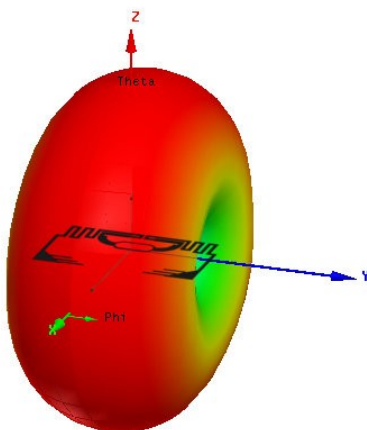
### Applications

- Apparel applications
- Item level tagging

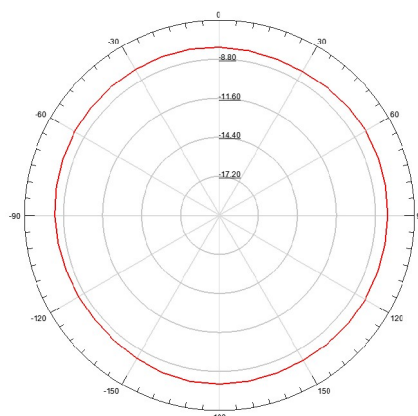
### Inlay Layout and Dimensions

	UH414
Antenna width	47.5 mm ± 0.5 mm (1.87 ± 0.02 in)
Antenna length	28 mm ± 0.5 mm (1.10 ± 0.02 in)
Lengthwise pitch	39.08 mm ± 0.5 mm (1.54 ± 0.02 in)
Web width	60 mm ± 0.5 mm (2.36 ± 0.02 in)

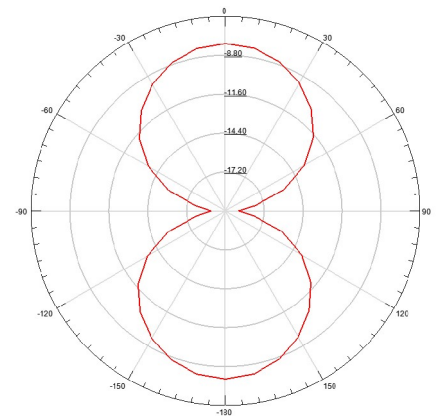
3D Radiation pattern



[Z,X] Radiation pattern



[Y,Z] Radiation pattern





## Inlay Composition

Composition	Material	Thickness* [µm]
Top	Aluminium	9 ± 5%
Support	Polyester PET	38 ± 5%

\* Overall thickness depends on the IC. For IC thickness please refer to the "Available ICs" table

## Available ICs

	Impinj Monza 4D	Impinj Monza 4E	Impinj Monza 4QT
Product code	UH414-MZ4D	UH414-MZ4E	UH414-MZ4QT
Operating frequency	840 ÷ 960 MHz		
Standard compliance	EPC Class 1 Gen2 – ISO 18000-6C		
Thickness	100µm ± 15µm	120µm ± 15µm	100µm ± 15µm
Operating temperature	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
EPC code	128 bits	496 bits	128 bits
User memory	32 bits	128 bits	512 bits
TID (locked)	96 bits serialized	96 bits serialized	96 bits serialized + 96 rw bits for public EPC
Reserved memory	64 bits (for Kill and Access passwords)	64 bits (for Kill and Access passwords)	64 bits (for Kill and Access passwords)
Write endurance	50 years	50 years	50 years
Data retention	100 000 cycles	100 000 cycles	100 000 cycles

## General supply conditions

Reel dimensions	Internal diameter	76 mm
	External diameter	< 200 mm (custom sizes available upon request)
Reel quantity	Inlay per reel	5000 ± 10% (custom sizes available upon request)