

### Inlay Features

- EPC Class1 Gen2 compliant
- Compact dipole configuration
- Good read range.
- High orientation insensitivity
- Designed to work in environment with high density of tags
- Fits well into small sized labels
- Optimized performance when attached to paper or apparel
- Supports Impinj Monza dies (UH423 for Monza5, UH424 for Monza4)

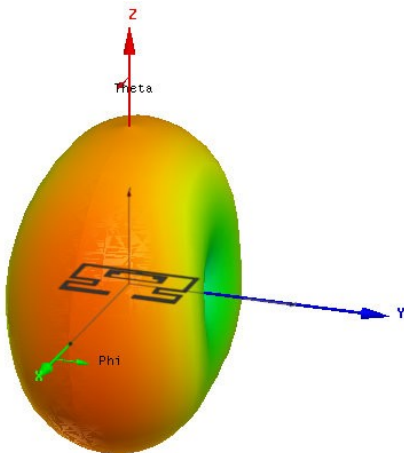
### Applications

- Item-level logistics
- Apparel applications

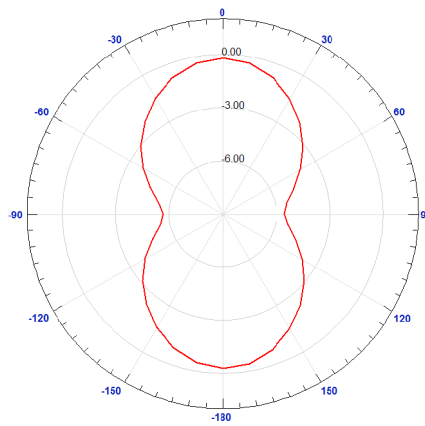
### Inlay Layout and Dimensions

	UH423	UH424
<b>Antenna width</b>	50 mm ± 0.5 mm (1.97 ± 0.02 in)	30 mm ± 0.5 mm (1.18 ± 0.02 in)
<b>Antenna length</b>	30 mm ± 0.5 mm (1.18 ± 0.02 in)	50 mm ± 0.5 mm (1.97 ± 0.02 in)
<b>Lengthwise pitch</b>	34.64 mm ± 0.5 mm (1.36 ± 0.02 in)	63.5 mm ± 0.5 mm (2.50 ± 0.02 in)
<b>Web width</b>	58 mm ± 0.5 mm (2.28 ± 0.02 in)	40 mm ± 0.5 mm (1.57 ± 0.02 in)

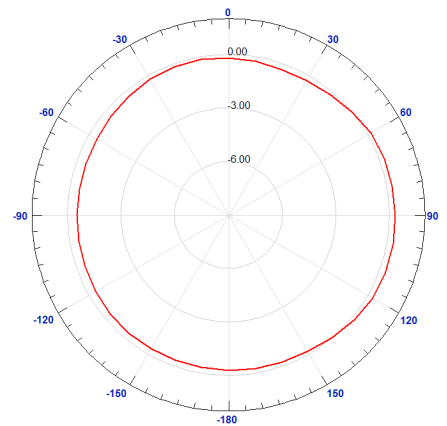
3D Radiation pattern



[Z,X] Radiation pattern



[Y, Z] Radiation pattern





## INLAY UHF – UH423 / UH424

### 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 5	Impinj Monza 4D	Impinj Monza 4E	Impinj Monza 4QT
Product code	UH423-MZ5	UH424-MZ4D	UH424-MZ4E	UH424-MZ4QT
Operating frequency	840 ÷ 960 MHz			
Standard compliance	EPC Class 1 Gen2 – ISO 18000-6C			
Thickness	100µm ± 15µm	100µm ± 15µm	100µm ± 15µm	100µm ± 15µm
Operating temperature	-40 °C to +65 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
EPC code	128 bits	128 bits	496 bits	128 bits
User memory	n/a	32 bits	128 bits	512 bits
TID (locked)	96 bits serialized	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)	64 bits (for Kill and Access passwords)
Write endurance	50 years	50 years	50 years	50 years
Data retention	100 000 cycles	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)