

Inlay Features

- EPC Class1 Gen2 compliant
- Small form factor and good performance
- Designed to work in environment with high density of tags
- Supports Impinj and NXP dies

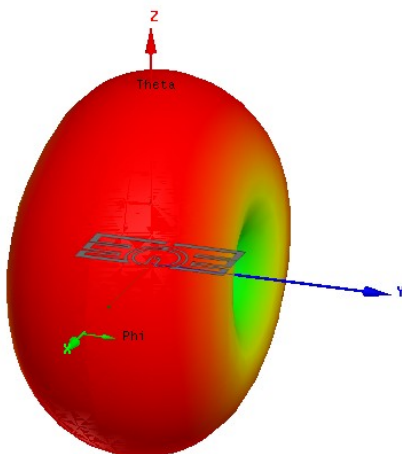
Applications

- Item-level logistics
- Apparel applications

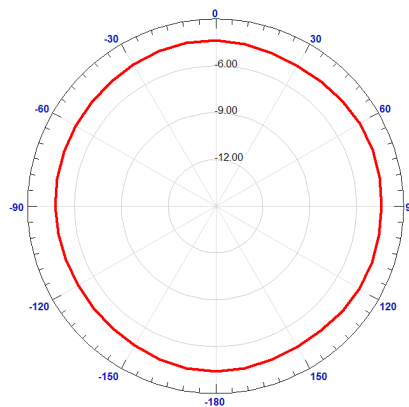
Inlay Layout and Dimensions

	UH621
Antenna width	42.5 mm ± 0.5 mm (1.67 ± 0.02 in)
Antenna length	18 mm ± 0.5 mm (0.71 ± 0.02 in)
Lengthwise pitch	tbd
Web width	tbd

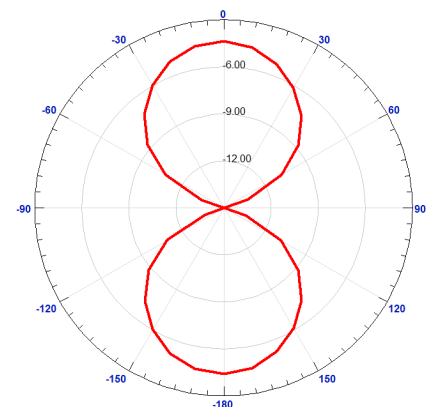
3D Radiation pattern



[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 3	Impinj Monza ID	
Product code	UH621-MZ3	UH621-MZID	
Operating frequency	860 ÷ 870 MHz		
Standard compliance	EPC Class 1 Gen2 – ISO 18000-6C		
Thickness	150µm ± 15µm	150µm ± 15µm	
Operating temperature	-40 °C to +65 °C	-40 °C to +65 °C	
Storage temperature	-40 °C to +85 °C	-40 °C to +85 °C	
Unique serial number	n/a	8 bytes in User Memory bank	
EPC code	96 bits	96 bits	
User memory	n/a	8 bytes factory locked (UID)	
TID	32 bits (locked)	32 bits (locked)	
Reserved memory	64 bits (for Kill and Access passwords)	112 bits (locked for factory use)	
Write endurance	50 years	50 years	
Data retention	100 000 cycles	100 000 cycles	

	NXP UCode G2XL	NXP UCode G2XM	
Product code	UH621-G2XL	UH621-G2XM	
Operating frequency	860 ÷ 870 MHz		
Standard compliance	EPC Class 1 Gen2 – ISO 18000-6C		
Thickness	150µm ± 15µm	150µm ± 15µm	
Operating temperature	-40 °C to +85 °C	-40 °C to +65 °C	
Storage temperature	-55 °C to +125 °C	-55 °C to +125 °C	
Unique serial number	32 bits in TID	32 bits in TID	
EPC code	240 bits	240 bits	
User memory	n/a	512 bits	
TID	64 bits (read only)	64 bits (read only)	
Reserved memory	64 bits (for Kill and Access passwords)	64 bits (for Kill and Access passwords)	
Write endurance	10 years	10 years	
Data retention	10 000 cycles	10 000 cycles	

General supply conditions

Reel dimensions	Internal diameter	76 mm
	External diameter	< 200 mm (custom sizes available upon request)
Reel quantity	Inlay per reel	2500 ± 10% (custom sizes available upon request)