

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 NXP UCode dies

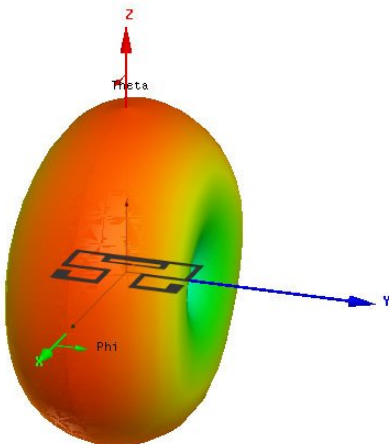
Applications

- Item-level logistics
- Apparel applications

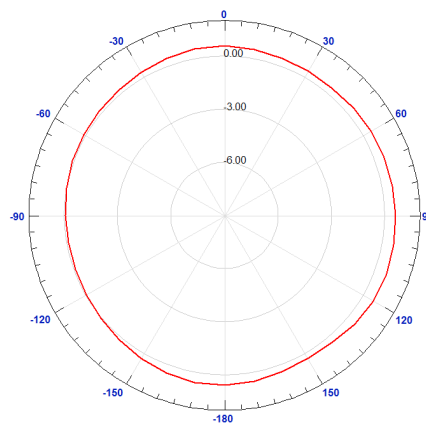
Inlay Layout and Dimensions

	UH424
Antenna width	30 mm ± 0.5 mm (1.18 ± 0.02 in)
Antenna length	50 mm ± 0.5 mm (1.97 ± 0.02 in)
Lengthwise pitch	tbd
Web width	tbd

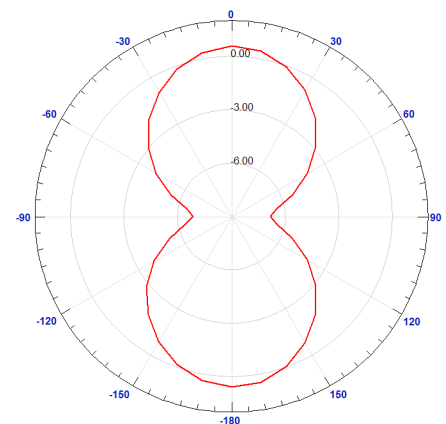
3D Radiation pattern



[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

	NXP UCode G2XL	NXP UCode G2XM	
Product code	UH424-G2XL	UH424-G2XM	
Operating frequency	860 ÷ 920 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)