

## Theta Inlay



Xerafy Theta is a flexible RFID inlay designed with injection molding in mind.

Operating at global frequencies, it is thin and flexible, and survives temperatures of up to 230°C, making it the ideal solution for RFID at point-of-manufacturing.



Global frequency



Hi-Temp resistant



Flexible and embeddable



Long read range  
off metal



Cost effective



- Plastics Injection Molding Processes
- Returnable Transport Items
- Automotive Components
- Hand Tools and Equipment
- Portable Power Equipment and Cables

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### Performance Characteristics

Read range <sup>1</sup> (Handheld)	Up to 16 ft (5 m)
Read range <sup>1</sup> (Fixed)	Up to 29.5 ft (9 m)
Polarization	Linear
Mounting system	Injection molding

1. Off metal

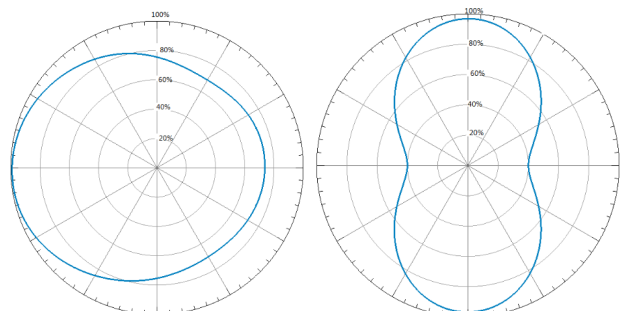
### Functional Specification

RF protocol	EPC global Class 1 Gen2
Frequency	902-928 , 865-868 MHz (Global)
IC type (chip) <sup>1</sup>	Alien Higgs-3
Memory	96-bit EPC, 512-bit user memory, 64-bit serialized TID
Material	FPC
Format	Dry inlay

1. The chip data retention is up to 50 years, based on chip operating under general environment conditions.

### Radiation Pattern

Off metal Horizontal / Vertical



## Environmental Specification

Operational temperature	-40°C to +100°C
Survival temperature	-40°C to +230°C (6 hours)
Chemical resistance <sup>1</sup>	Various caustic chemicals
Shock (drop)	3 ft (1 m) to concrete/granite
Vibration	MIL-STD-810G
IP rating	IP 68

1. The chemical resistance is based on the concentration of solutions and application environment. Please contact Xerafy for further details on chemical resistance.

## Industry Compliance

RoHS	EU Directive 2011/65/EU
CE	Yes
ATEX/IECEX	Compliant
Warranty	1 year

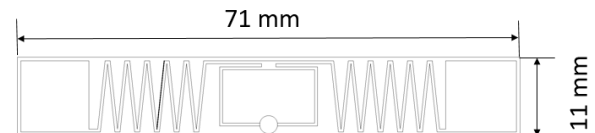
## Order Information

X7101-GL100-H3	Theta Inlay
Optional service	encoding



## Product Dimensions and Weight

Dimensions (in)	2.8 x 0.43 x 0.005
Tolerance	+/- 0.02
Dimensions (mm)	71 x 11 x 0.13
Tolerance	+/- 0.5
Weight	0.2g



## Installation Instructions

Designed to work with a wide range of thermoplastic resins and to be compatible with a large number of injection molding processes.

### About Xerafy

Xerafy designs and manufactures the world's toughest RFID tags to power Industrial IoT applications in Aerospace, Oil & Gas, Automotive, Healthcare and Manufacturing.

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