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.





Hi-Temp resistant



Flexible and embeddable





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

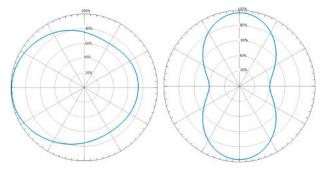
1. Off metal

Functional Specification		
RF protocol	EPC global Class 1 Gen2	
Frequency	902-928 , 865-868 MHz (Global)	
IC type (chip)1	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 ¹	Various caustic chemicals
Shock (drop)	3 ft (1 m) to concrete/granite
Vibration	MIL-STD-810G
IP rating	IP 68

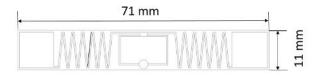
The chemical resistance is based on the concentration of solutions and application environment. Please contact Xerafy for further details on chemical resistance.

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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