

## Dot-On XS



### Functional Specifications

RF air protocol	EPC Class 1 Gen 2; ISO18000-6C
Operating frequency	UHF 902-928 MHz (US); 866-868 MHz (EU)
IC type	Alien Higgs-3
Memory configuration	96-bit EPC; 512-bit user memory; 64-bit TID
Functionality	Read / write (user programmed)
Memory – expected read / write cycles	100,000 cycles at 77°F (25°C)
Data retention	Up to 50 years <sup>1</sup>
Read rate	400 tags per second for 96-EPC bit number
Warranty (limited)	1 year

### Performance Characteristics

Read range on metal (2W ERP) <sup>2</sup>	Up to 5 ft (1.5 m)
Polarization	Linear

\*Actual read range may vary based upon specific application case and antenna power

### Physical Specifications

Material	Ceramic
Mounting system	Epoxy
Color	Black

### Environmental and Industry Compliance

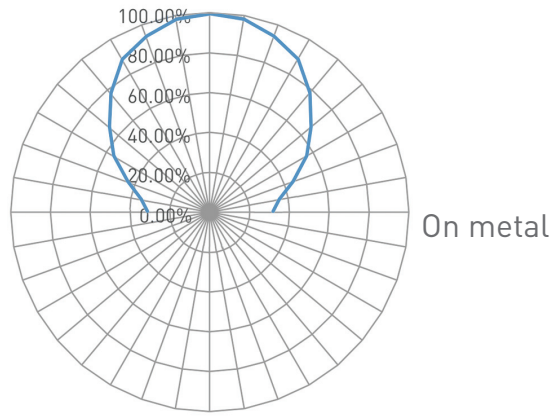
FDA Class	Class I
Global Unique Device Identification Database (GUDID)	Support
RoHS	EU Directive 2002/95/EC
ATEX	ATEX Compliant
Autoclavable	Yes



<sup>1</sup> The chip data retention is based on chip operating under general environment conditions.

<sup>2</sup> Actual read range may vary based upon use case and antenna power.

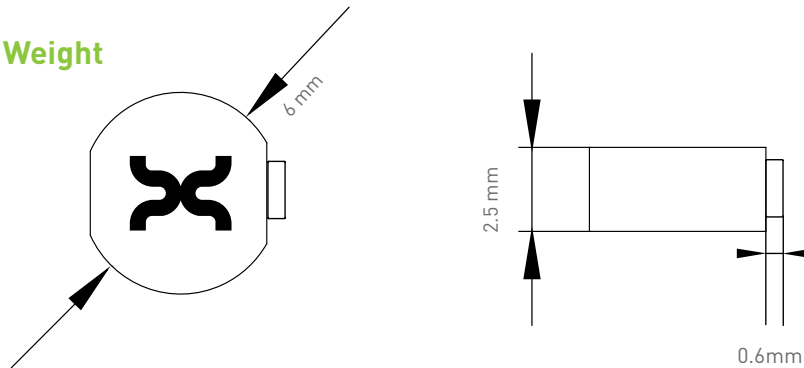
**Radiation Pattern**



**Operational and Environmental Specifications**

Operational temperature	
Cold	-40°F (-40°C)
Dry heat (Long term, days/weeks/years)	+185°F (+85°C)
Application temperature	
Cold	-40°F (-40°C)
Dry heat (Short term, minutes/hours)	+302°F (+150°C)
Humidity	
Operational humidity	5%-95% non-condensing
Storage humidity	5%-95% non-condensing
Shock (drop)	3 ft (1 m) to concrete/granite up to 200 cycles
Vibration	MIL-STD-810F
IP classification	IP68

**Product Dimensions and Weight**



Dimensions (mm)	ø 6 x 2.5
tolerance	+/- 0.2
Dimensions (in)	ø 0.24 x 0.1
tolerance	+/- 0.008
Weight	0.012 oz (0.34 g)

**Order information**

X4102-US000-H3	Dot On US
X4102-EU000-H3	Dot On EU

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Data retention	Up to 50 years <sup>1</sup>
Read rate	400 tags per second for 96-EPC bit number
Warranty (limited)	1 year

### Performance Characteristics

Read range in metal (2W ERP) <sup>2</sup>	Up to 3 ft (1 m)
Polarization	Linear

### Physical Specifications

Material	Ceramic
Mounting system	Epoxy
Color	White

### Environmental and Industry Compliance

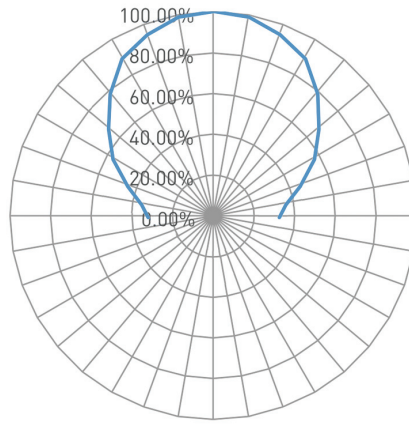
FDA Class	Class I
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RoHS	EU Directive 2002/95/EC
ATEX	ATEX Compliant
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**Radiation Pattern**

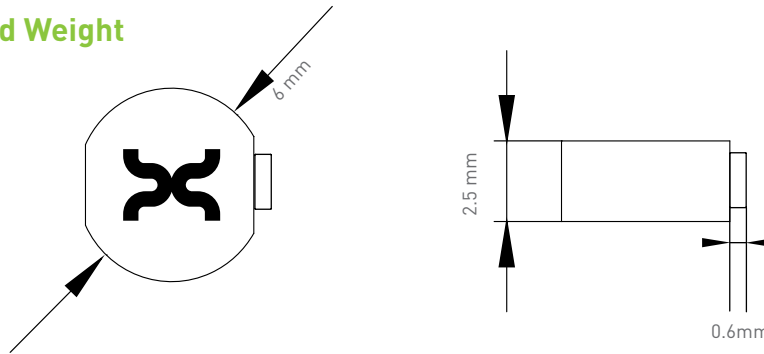


In metal

**Operational and Environmental Specifications**

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Application temperature	
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**Product Dimensions and Weight**



Dimensions (mm)	∅ 6 x 2.5
tolerance	+/- 0.2
Dimensions (in)	∅ 0.24 x 0.1
tolerance	+/- 0.008
Weight	0.012 oz (0.34 g)

**Order information**

X4202-US000-H3	Dot iN US
X4202-EU000-H3	Dot iN EU