

Nano-iN

P/N: X0220-US000-H3 / X0220-EU000-H3



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-EPC bits; 512-bit user memory
Functionality	Read / write (user programmed)
Memory – expected read / write cycles	100,000 cycles at 77°F (25°C)
Data retention	Up to 50 years ¹
Read rate	400 tags per second for 96-EPC bit number
Warranty (limited)	1 year

Performance Characteristics

Read range in metal (2W ERP) ²	Up to 13 ft (4 m)
Polarization	Linear

Physical Specifications

Material	Ceramic
Color	White

Environmental and Industry Compliance

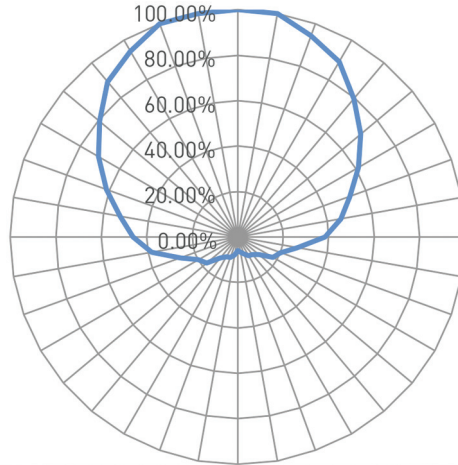
RoHS	EU Directive 2002/95/EC
ATEX	ATEX Compliant



¹ The chip data retention is based on chip operating under general environment conditions.

² Actual read range may vary based upon use case and antenna power.

Radiation Pattern



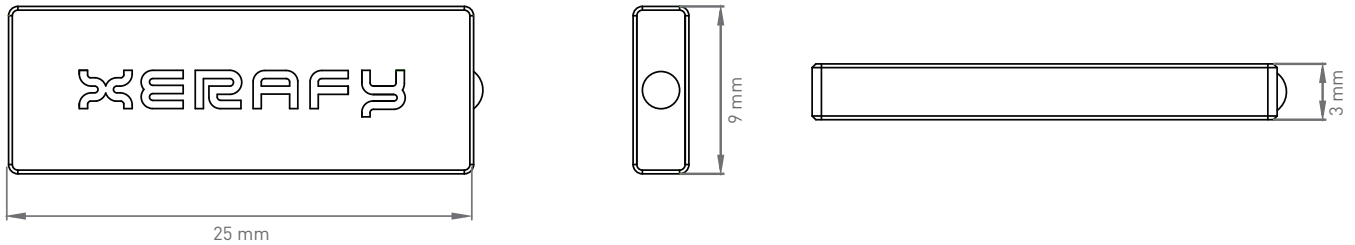
Operational and Environmental Specifications

Operational temperature	
Cold	-22°F (-30°C)
Dry heat	+185°F (+85°C)
Thermal shock	-22°F to 185°F (-30°C to +85°C); cycled

Peak temperature	
Cold	-40°F (-40°C)
Dry heat	+302°F (+150°C)

Humidity	
Operational humidity	5%-95% non-condensing
Storage humidity	5%-95% non-condensing

Product Packaging and Weight



Dimensions (mm)	25 x 9 x 3
tolerance	+/- 0.3
Dimensions (in)	0.98 x 0.35 x 0.12
tolerance	+/- 0.012
Weight	0.13 oz (3.6 g)

Cylindrical Socket Dimensions for Flush-mounting

Cylindrical socket dimensions / tolerance (mm)	28 (+/- 0.5) x 3.3(+/- 0.2)
Cylindrical socket dimensions / tolerance (in)	1.10(+/- 0.02) x 0.13(+/- 0.008)

