

Micro^X II



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 ¹
Read rate	400 tags per second for 96-EPC bit number
Warranty (limited)	1 year

Performance Characteristics

Read range on metal (2W ERP) ²	Up to 33 ft (10 m)
Polarization	Linear

Physical Specifications

Material	Engineering-grade nylon polymer
Mounting system	Rivet hole, ø 0.12 in (3.2 mm); adhesive (optional)
Color	Charcoal

Environmental and Industry Compliance

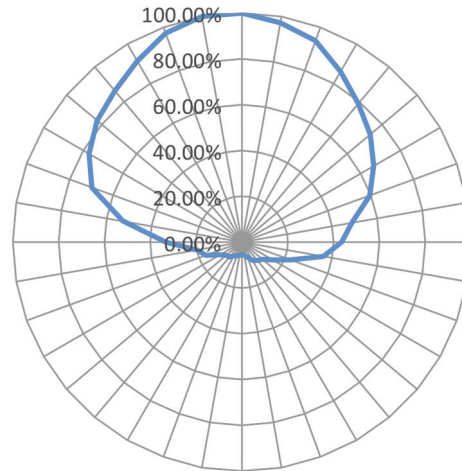
RoHS	EU Directive 2002/95/EC
ATEX	ATEX Compliant



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 (Long term, days/weeks/years)	+185°F (+85°C)
Thermal shock	-22°F to 185°F (-30°C to +85°C); cycled

Application temperature

Cold	-40°F (-40°C)
Dry heat (Short term, minutes/hours)	+482°F (+250°C)

Humidity

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

Chemical resistance

Isopropyl alcohol	48 hours
Industrial cleaner	48 hours
Epoxy resin coolant	48 hours
Industrial rust lubricant	48 hours
Acetone	48 hours
Salt water (15% salinity)	168 hours
Sodium Hydroxide (10% pH 13)	168 hours
Sulfuric acid (10%, pH 2)	168 hours
Engine oil	168 hours
Gasoline	48 hours
Diesel fuel	48 hours
Soap solution (30%)	48 hours
Carboxylic acids	Testing recommended

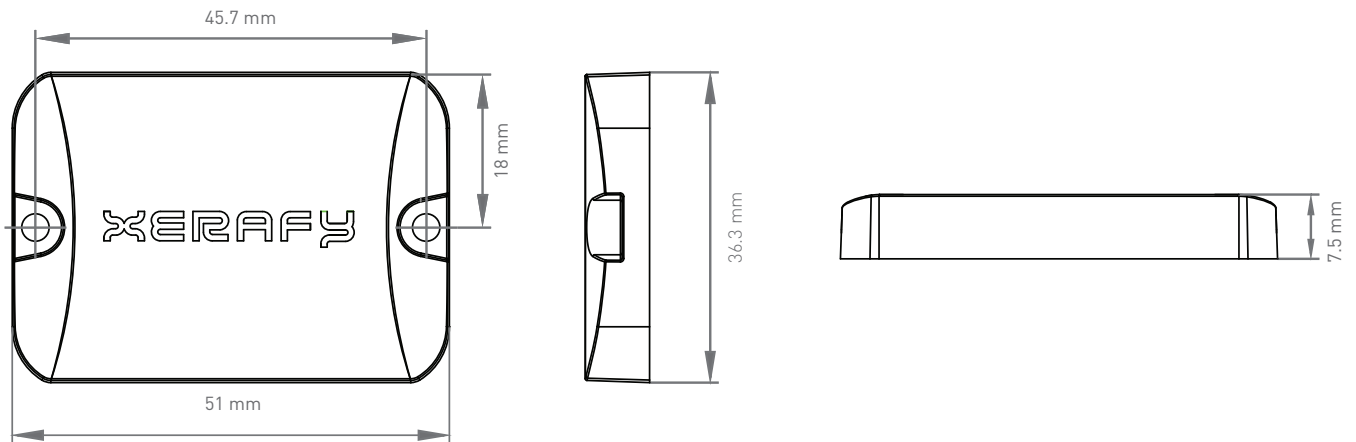
Shock (drop) 3 ft (1 m) to concrete/granite up to 200 cycles

Vibration MIL-STD-810F

Compression strength 181 psi (1250 kPa)

IP classification IP68

Product Dimensions and Weight



Dimensions (mm)	51 x 36.3 x 7.5
tolerance	+/- 0.5 mm
Dimensions (in)	2.01 x 1.43 x 0.30
tolerance	+/- 0.02 in
Rivet hole diameter	0.126 in +/-0.008 [3.2 mm +/- 0.2]
Weight	0.92 oz (26 g)

Order information

X1130-US100-H3	Micro XII US
X1130-EU100-H3	Micro XII EU



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