

Autoclavable Pico



Functional Specifications

RF air protocol	EPC Class 1 Gen 2; ISO18000-63
Operating frequency	902-928 MHz (US), 866-868 MHz (EU)
IC type	Alien Higgs-3
Memory configuration	96-EPC bits; 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 10 ft (3 m)
Polarization	Linear

Physical Specifications

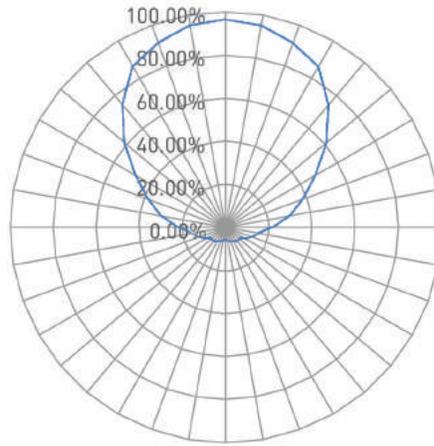
Material	Silicon
Mounting system	Screw Rivet hole, 0.135 in
Color	Cool Grey

Environmental and Industry Compliance

RoHS	EU Directive 2011/65/EU
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.



Operational and Environmental Specifications

Operational temperature	
Cold	-40°F (-40°C)
Dry heat (Long term, days/weeks/years)	+185°F (+85°C)
Thermal shock	-40°F to 185°F (-40°C to +85°C); cycled
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
Chemical Resistance	No physical or performance changes in: salt water, NaOH, Sulfuric acid, Motor oil, crude oil
	Generally good against: Most solvents and most acids and bases
Weather ability	Almost any weather including sea water immersion expect intense radiation
Shock (drop)	4 ft (1.5 m) to concrete/granite up to 200 cycles
Vibration	MIL-STD-810G
IP classification	IP69K

Cleaning and Disinfection Process (ANSI/AAMI ST79)

Chemical sterilization for decontamination	
Liquid chemical sterilants include glutaraldehyde, hydrogen peroxide, hydrogen peroxide-peracetic acid combinations, sodium hypochlorite, and peracetic acid.	Pass

Thermal (hot water) disinfection

- Washer-sanitizers, washer-decontaminators, utensil washers, and cart washers reduce microbial contamination by means of cleaning agents, hot water, rinsing, and drying. Pass
- Pasteurization equipment provides cleaning and high-level disinfection at water temperatures of 65°C to 77°C (150°F to 170°F) for a contact time of at least 30 minutes.
- Washer-disinfectors provide a cycle of cleaning, rinsing, disinfection, and drying at temperatures that are usually higher than those of washer-sanitizers

Thermal sterilization for decontamination

Saturated steam can be used to decontaminate devices capable of withstanding high temperatures (121°C to 135°C [250°F to 275°F]) and pressures (16 to 35 psig). Washer-sterilizers provide cleaning and rinsing followed by exposure to saturated steam at temperatures of 121°C to 135°C (250°F to 275°F). Pass

Ultrasonic cleaner

20K to 30KHz for 30 min Pass

Disinfection by light

C wave ultraviolet and wavelength range is from 200nm to 275nm Pass

Detergent enzyme cleaner

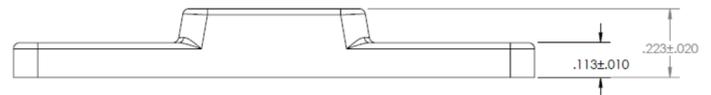
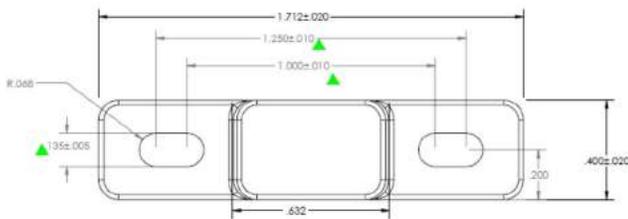
Pass

Autoclave sterilization

134 °C and 0.3 Mpa for more than 1000 cycles Pass

Pass

Product Dimensions and Weight



Dimensions (mm)	43.5 (+/-0.3) x 27.9 (+/-0.3) x 5.5 (+/-0.3)
Dimensions (in)	1.712 (+/-0.001) x 0.40(+/-0.001) x 0.22 (+/-0.001)
Weight	0.11 oz (3.2 g)

Order information

X3110-US170-H3	Autoclavable Pico (US)
X3110-EU170-H3	Autoclavable Pico (EU)