

Pico Wedge



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 in metal (2W ERP) ²	Up to 8.2 ft (2.5 m)
Polarization	Linear

Physical Specifications

Material	Engineering grade nylon polymer
Mounting system	Plug in, epoxy (optional)
Color	Green

Environmental and Industry Compliance

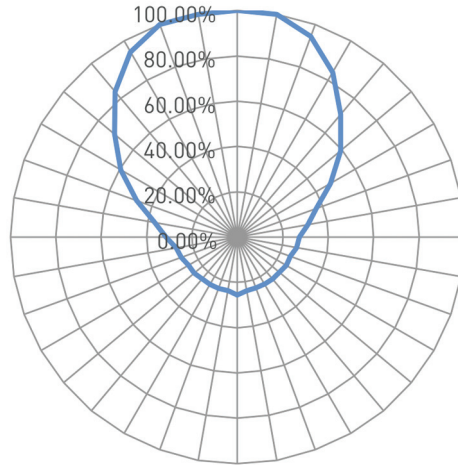
RoHS	EU Directive 2011/65/EU
CE	Yes
ATEX/IECEX	Certified



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.

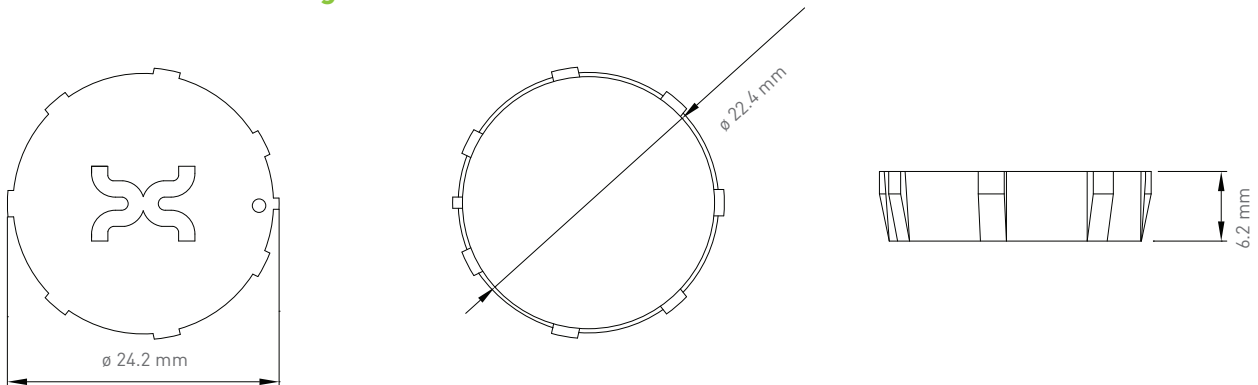
Radiation Pattern



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	-22°F (-30°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
Compression strength	156 psi (1076 kPa)
IP classification	IP68

Product Dimensions and Weight



Dimensions (mm)	∅ 24.2 x 6.2
tolerance	+/- 0.3
Dimensions (in)	∅ 0.95 x 0.24
tolerance	+/- 0.012
Weight	0.13 oz (3.7 g)

Cylindrical Socket Dimensions for Flush-mounting

Cylindrical socket dimensions / tolerance (mm)	∅ 23.5 (+/- 0.25) x 6.5 (+/- 0.2)
Cylindrical socket dimensions / tolerance (in)	∅ 0.93 (+/- 0.01) x 0.26 (+/- 0.008)

Order information

X1112-US101-H3	Pico Wedge US
X1112-EU101-H3	Pico Wedge EU