

Xplorer



Functional Specifications

| | |
|---------------------------------------|--|
| RF air protocol | EPCglobal Class 1 Gen 2; ISO18000-6C |
| Operating frequency | UHF 902-928 MHz (US); 865-868 MHz (EU) |
| IC type | Alien Higgs-3 |
| Memory configuration | 96-EPC bits, extensible to 480-bit; 64-bit unique TID, 512-bit user memory |
| Functionality | Read / write (user programmed) |
| Memory – expected read / write cycles | 100,000 cycles at 25°C |
| Data retention | 10 years |

Performance Characteristics

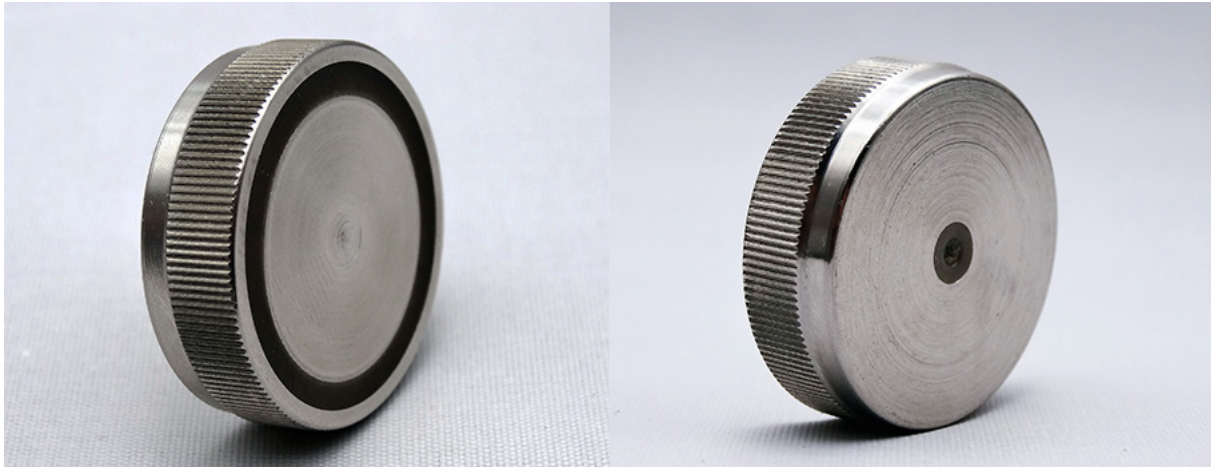
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|---|---|
| Read range embedded in metal (2W ERP): | Up to 5 ft (1.5 m) |
| Polarization | Linear |
| Recommended handheld reader* | TSL 1128 / 1166 (30dBm transit power) |
| Recommended fixed reader* | Impinj R220/R420 (30dBm transit power) |
| Recommended antenna power for fixed reader* | 6dBi antenna gain, circular polarized antenna |
| Recommended transit power in total* | 4W EIRP / 2W ERP |

Physical Specifications

| | |
|--|------------------------------------|
| Material | Stainless steel 304 |
| Mounting system | Snap in, embedded |
| Embed hole dimensions / tolerance (in) | ∅ 1.1 (+/-0.002) x 0.35 (+/-0.004) |
| Embed hole dimensions / tolerance (mm) | ∅ 28 (+/-0.05) x 9.0 (+/-0.1) |



*For best tag performance in practical application the readers listed above are strongly recommended. Actual read range may vary based upon use case and antenna power.



Operational and Environmental Specifications

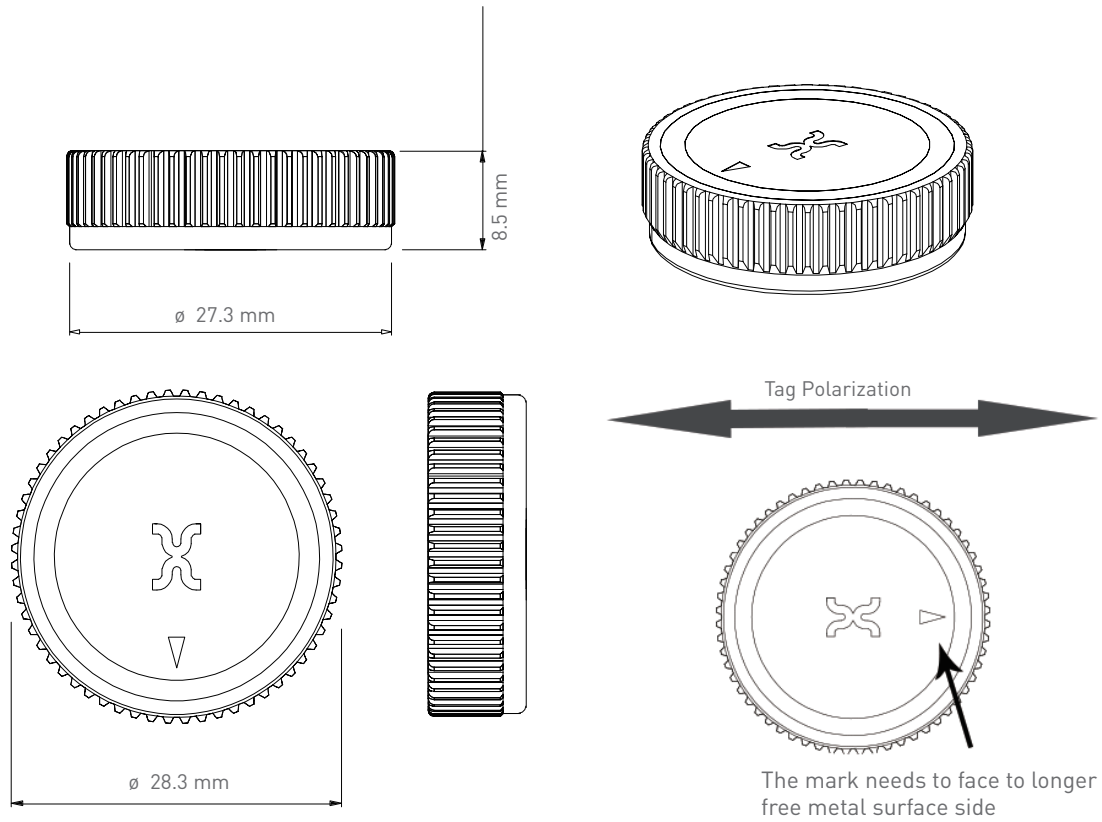
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|--|--|
| Operational temperature | |
| Cold | - 40°F (-40°C) |
| Dry heat (Long term, weeks/months/years) | +185°F (+85°C) |
| Application temperature | |
| Cold | -58°F (-50°C) |
| Dry heat (Long term, weeks/months/years) | +482°F (+250°C) |
| Humidity | |
| Operational humidity | 5%-95% non-condensing |
| Storage humidity | 5%-95% non-condensing |
| Chemical Resistance | Withstands drilling fluids and hydraulic fluids including hydrogen sulphide. |
| Vibration | MIL-STD-810G |
| Compression Strength | 30,000 psi (206 MPa) |
| Weather ability | All weather including UV-resistance and sea water immersion |

Product Dimensions and Weight

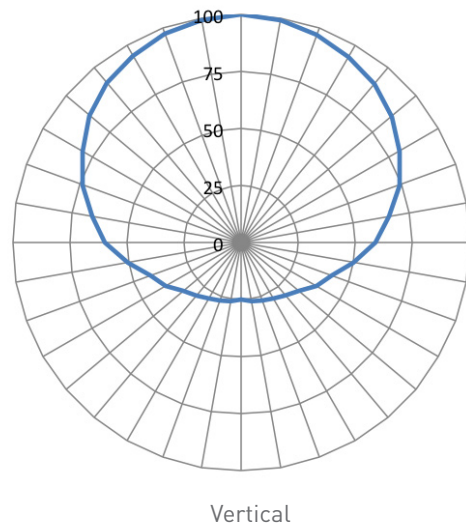
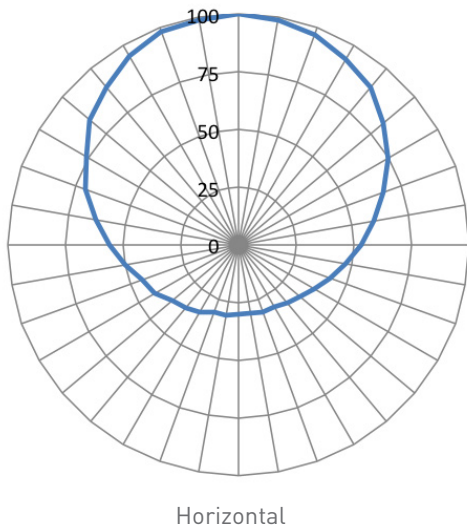
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|-----------------|------------------|
| Dimensions (in) | ∅ 1.11 x 0.33 |
| Tolerance | +/- 0.004 |
| Dimensions (mm) | ∅ 28.3 x 8.5 |
| Tolerance | +/- 0.1 |
| Weight | 0.89 oz (25.4 g) |

Industry Compliance

| | |
|------------|--------------------------------------|
| RoHS&REACH | EU Directive 2011/65/EU, EC1907/2006 |
| CE | Yes |
| ATEX/IECEX | Certified |
| IP rating | IP 69K |



Radiation Pattern



Order information

X1115-US101-H3

Xplorer US

X1115-EU101-H3

Xplorer EU

Optional service

Tag pre-encoding and Laser engraving