# ALR-A1001

## Ultra Slim 8.5dBic Antenna

The Alien Technology® ALR-A1001 is a high-performance, circular-polarized antenna for use in demanding applications. The ALR-A1001 is a 8.5dBic gain antenna for use with Alien®'s readers.

### FEATURES

- Very Low Profile
- Up to 9m / 29 ft. read range
- Extremely low VSWR and axial ratio
- Weather and UV resistant radome (IP67)
- SMA female connector
- RoHS EU 2002/95/EC compliant

### APPLICATIONS

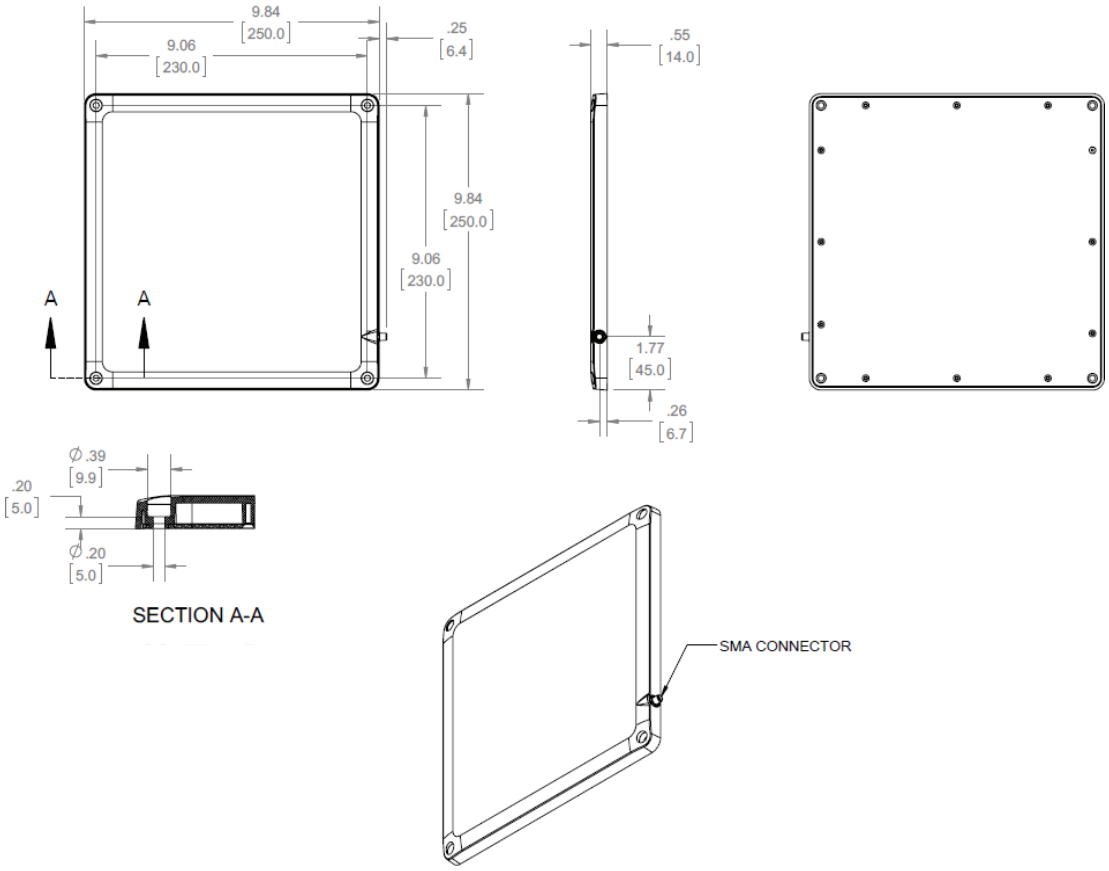
- Warehouses
- Distribution centers
- Airports and hospitals
- Transit terminals
- Conveyer belts

| Benefit | Enabled By: | What does this mean to me? |
|---|---|---|
| A thin antenna with no protrusions | Low profile, just 14mm/0.55" thick | Enables mounting where objects may otherwise hit or damage a larger antenna |
| Built to keep the elements out | Weather and UV resistant and IP67 rating | Designed for a variety of inside and outside applications that demand a robust antenna |
| Highly efficient antenna | Extremely low VSWR and axial ratio | Read tags in challenging environment and/or at greater distances. Very robust read capability regardless of tag orientation. |

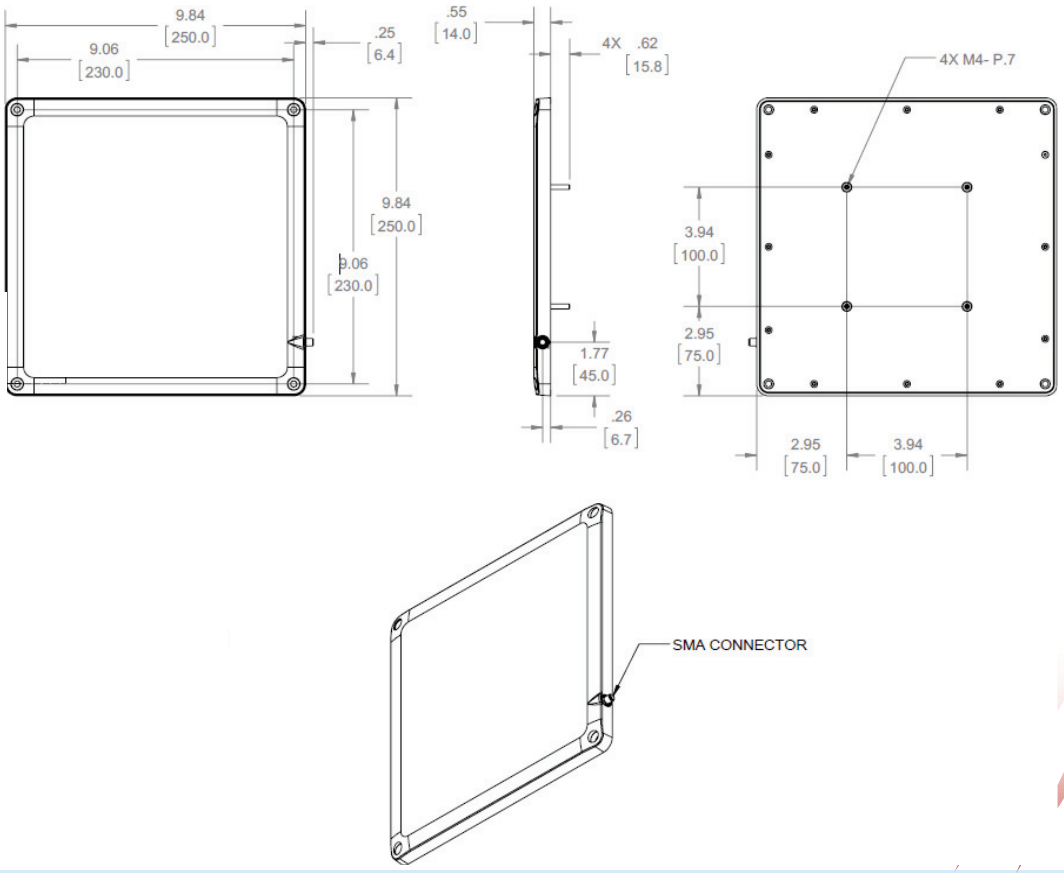
The Alien Technology's ALR-A1001 antenna is circularly polarized panel antenna that provides reception and transmission of signals either in the 865-867 ETSI (ALR-A1001-E-x) or 902-928 MHz FCC (ALR-A1001-F-x) frequency band. The design achieves maximum efficiency and performance across the entire frequency band and all tag orientations.


VSWR and axial ratios are both excellent and allow the user to achieve the maximum performance for an antenna of this type. The antenna is housed in a heavy duty radome enclosure with options for direct wall mounting via flush through-hole (ALR-A1001-x-S) or VESA studded (ALR-A1001-x-V) mounting techniques.

## Dimensions - Standard Flush mount (ALR-A1001-x-S)




## Dimensions - VESA Stud mount (ALR-A1001-x-V)



# ALR-A1001

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### Ordering Information

| Model # | Description |
|---|---|
| ALR-A1001-F-S | FCC / Standard Flush Mount |
| ALR-A1001-F-V | FCC / VESA Stud Mount |
| ALR-A1001-E-S | ETSI / Standard Flush Mount |
| ALR-A1001-E-V | ETSI / VESA Stud Mount |

### Specifications

| Parameter | ALR-A1001-F-x | ALR-A1001-E-x |
|---|---|---|
| Frequency Range | 902 - 928 MHz | 865 - 867 MHz |
| Gain | 8.5dBic | |
| Maximum VSWR | ≤ 1.3:1 | |
| 3 dB Beamwidth - Azimuth | 68° x 68° | |
| Front to Back Ratio | 20 dB | |
| Polarization | Circular Right-hand | |
| Maximum Input Power | 3 Watts (34dBm) | |
| Input Impedence | 50 ohms | |
| Axial Ratio | 2dB typical ; 4dB Max | |
| Weight | 1.6 lbs (0.75 Kg) | |
| Mechanical Size | 9.84" x 9.84" x 0.55" (250 x 250 x 14mm) | |
| Antenna Connection | SMA Female (no cable) * | |
| Radome | UV-Resistant ABS | |
| Mount Style | Standard Flush (ALR-A1001-x-S) or 100mm VESA (ALR-A1001-x-V) | |
| Operating Temperature | -20° to +55°C / -4° to +131°F | |
| Storage Temperature | -30° to +65°C / -22° to +149°F | |
| Humidity | 5-85% Non Condensing | |
| Lightning Protection | DC Grounded | |
| Environmental Rating | IP 67 | |

* Alien recommends ALX-421-6 cable (not included) to ensure compliance with local regulations. Other options listed below

### Antenna Cable Options (Not Supplied with Antenna)

| Model # | Description | Comment |
|---|---|---|
| ALX-421-3 | 3 METER SMA M to RP-TNC M Antenna Cable | Per FCC, professional installation is required to ensure compliance with local regulations |
| ALX-421-6 | 6 METER SMA M to RP-TNC M Antenna Cable | Default solution for Alien Antenna |
| ALX-421-9 | 9 METER SMA M to RP-TNC M Antenna Cable | |


HANDLING PRECAUTIONS Observe standard handling practices to minimize ESD.
DISCLAIMER Application recommendations are guidelines only - actual results may vary and should be confirmed. This is a general purpose product not designed or intended for any specific application.


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