

# LONG RANGE RFID TAG IDEAL FOR METAL SURFACES



25.0 x 9.0 x 3.7 mm

 RoHS/RoHS II Compliant

 ESD Sensitive

MSL= 1

## ART915X2509EP60-IC

### FEATURES

- 1.8 meters read range on metal surfaces
- Wide -30°C to 85°C operating temperature range
- UHF band operation 902 to 928MHz
- Matched for lowest return loss at 915MHz
- Tag incorporates matched Alien H3 RFIC
- 25.0 x 9.0 x 3.7mm height ceramic tag
- ISO 18000-6C/EPC Class1 Gen2 compliant
- Peel & Stick easy installation
- Suitable for non-metal surfaces
- Robust, long life over wide temperature range

### APPLICATIONS

- Asset tracking: vehicles, machinery, tools, steel containers, servers, etc.
- Product inventory management: metallic assemblies, chassis, doors, equipment, etc.
- Industrial Internet of Things (IIoT)
- Automatic Vehicle Identification (AVI)
- Wildlife Identification and Waste Management
- Long distance RFID /Non-Stop Access Control

### STANDARD SPECIFICATIONS

| PARAMETERS                        | MINIMUM                      | TYPICAL  | MAXIMUM | UNITS  | NOTE                              |
|-----------------------------------|------------------------------|----------|---------|--------|-----------------------------------|
| Range of Receiving Frequency      |                              | 902-928  |         | MHz    |                                   |
| Frequency of Lowest Return Loss   |                              | 915±5    |         | MHz    | (Based on 200 x 200 mm GND Plane) |
| IC Protocol                       | ISO 18000-6C/EPC Class1 Gen2 |          |         |        |                                   |
| Memory                            |                              | 96 EPC   |         | Bits   |                                   |
|                                   |                              | 512 User |         | Bits   |                                   |
| IC Type                           | Alien H3                     |          |         |        |                                   |
| Reading Range                     |                              | 1.8      |         | m      |                                   |
| Working Temperature               | -30                          |          | +85     | °C     |                                   |
| Storage Temperature               | -40                          |          | +110    | °C     |                                   |
| Frequency Temperature Coefficient |                              | 0±10     |         | ppm/°C |                                   |
| ESD (HBM)                         |                              |          | 2       | KV     | 2KV Class 2 HBM                   |

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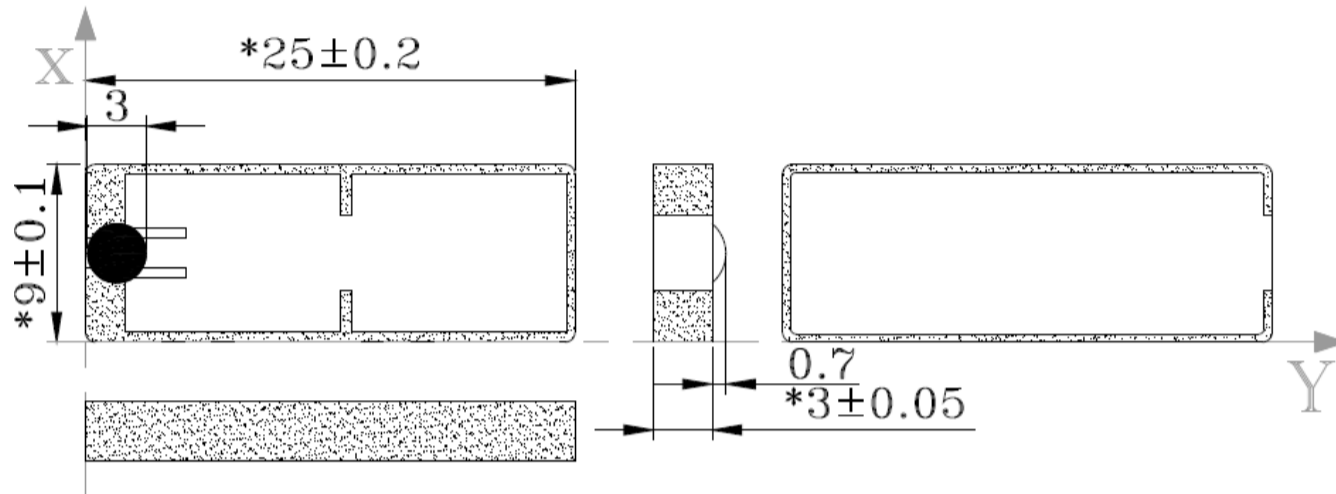
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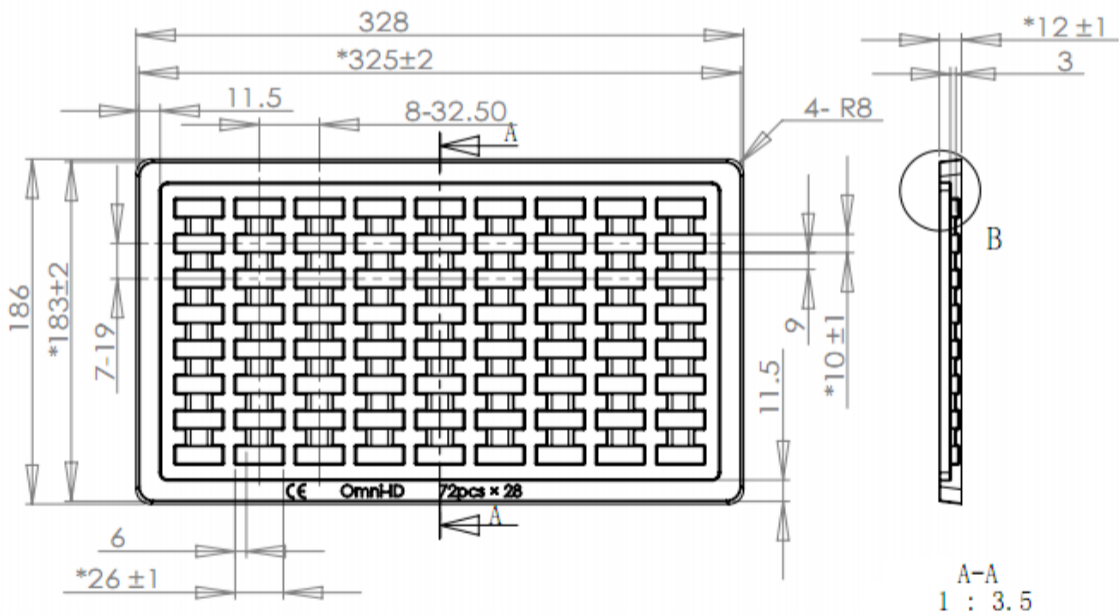
### MECHANICAL DIMENSIONS (ALL DIMENSIONS ARE IN mm)

Tolerances are  $\pm 0.2$ mm, unless otherwise specified\*

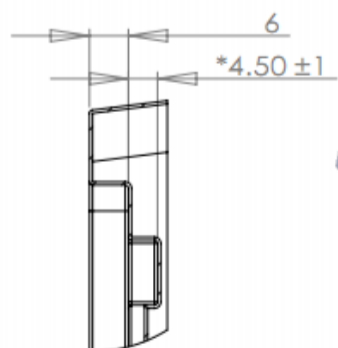


Mounting: The antenna is mounted with double sided adhesive tape that is attached to the underside of the antenna.

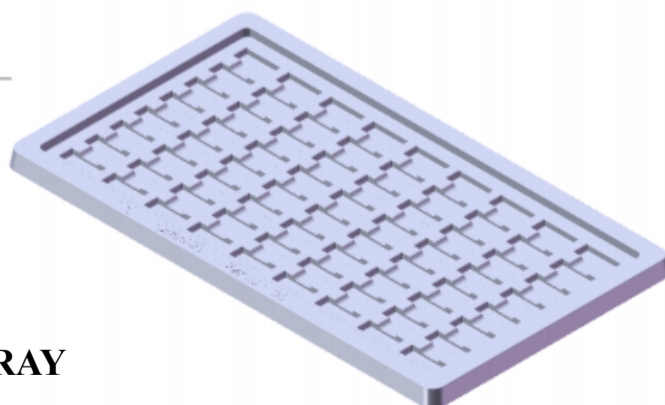
### PACKAGING



| PACKAGE TYPE | QUANTITY           |
|--------------|--------------------|
| Tray         | 72 pcs/tray        |
| Vacuum Bag   | 504pcs/ Vacuum Bag |
| MOQ          | 504pcs             |



TRAY



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## CAUTION

1. Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components as this will cause damage to the component.
2. Do not expose the component to open flame.
3. This specification applies to the functionality of the component as a single unit. For optimal performance, in-circuit validation is recommended.
4. Electrostatic sensitive device; observe standard precautions for handling.

## NOTES

1. The parts are manufactured in accordance with this specification. If other conditions and specifications which are required for this specification, please contact ABRACON for more information.
2. ABRACON will supply the parts in accordance with this specification unless we receive a written request to modify prior to an order placement.
3. In no case shall ABRACON be liable for any product failure from in appropriate handling or operation of the item beyond the scope of this specification.
4. When changing your production process post-validation, please notify ABRACON immediately.
5. ABRACON's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. ABRACON's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property damage.
6. All specifications and Marking will be subject to change without notice.

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