AD-327 U9 ETSI Pure 95™

Overview

Frequency Band
UHF 860 - 960 MHz

Chip
NXP UCODE 9

Chip Attachment Technology
Strap Attach

Antenna Dimensions
41.4 x 16 mm / 1.63 x 0.63 in

Die-cut Dimensions
44.45 x 19.05 mm / 1.75 x 0.75 in

International Standard
ISO/IEC 18000-63 Type C

Industry Segments
Apparel
Logistics
Healthcare

Applications
Supply Chain Management
Home Essentials
Inventory and Logistics

RoHS
EU Directive 2011/65/EU and 2015/863 Compliant

REACH

End of Life
Paper recyclability: PTS-RH021:97/2012

Excellent read range and versatility

AD-327 U9 ETSI Pure 95™ inlays leverage the capabilities of NXP's UCODE 9 chip, and are suitable for a wide variety of RFID tagging applications, including supply chain, inventory & logistics, apparel, and pharmaceutical & healthcare.

Sustainability

The AD-327 U9 ETSI Pure 95™ inlay antenna is produced with pure aluminum, replacing the PET aluminum laminate that is traditionally used in standard antenna production. By removing the plastic based layer, the total inlay construction is up to 95% plastic free in both wet inlay and label formats. A minimal amount of plastic-strap is used for the IC attachment.

The innovative manufacturing process also enables other benefits, such as recycling excess materials and reducing the total amount of materials while maintaining the overall performance of the product. In addition, based on extensive testing against PTS-RH021:97/2012 paper and cardboard recycling method with third party laboratorio shows that AD Pure 95™ inlays and label are recyclable within the items.

Application

AD-327 U9 ETSI Pure 95™ inlay 41.4 x 16 mm design is optimized for outstanding performance in the ETSI frequency band (865-868 MHz) and feature 96-bit of EPC memory as well as a 96-bit unique factory locked TID number. A 48-bit unique serial number is factory-encoded into the TID. Delivery formats include dry, wet and pressure sensitive label.

Quality

Like all RFID products from Avery Dennison, AD-327 U9 ETSI Pure 95™ inlays are manufactured according to the industry's highest quality standards, as confirmed by the RFID Lab at Auburn University. The inspection body awarded Avery Dennison its first comprehensive and significant ARC accreditation for quality.
## Technical features

<table>
<thead>
<tr>
<th></th>
<th>Chip</th>
<th>Chip Attachment Technology</th>
<th>EPC and User Memory</th>
<th>TID Memory</th>
<th>Product Code</th>
<th>Delivery Format</th>
<th>Die-Cut Dimension</th>
<th>Inlay Substrate</th>
<th>Total Thickness</th>
<th>Standard Pitch</th>
<th>Web Width</th>
<th>Core Size</th>
<th>Size of Roll</th>
<th>Quantity / Reel</th>
<th>Operating Temperature</th>
<th>On-Metal</th>
<th>Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NXP UCODE 9</td>
<td>Strap Attach</td>
<td>96-bit and n/a</td>
<td>96-bit / 48-bit unique serial number</td>
<td>RF602351 / IL-605264</td>
<td>Wet inlay</td>
<td>44.45 x 19.05 mm / 1.75 x 0.75 in</td>
<td>40# Paper</td>
<td>11.6 – 13.6 mils / 294.64 – 345.44 microns</td>
<td>38.1 mm / 1.5 in</td>
<td>50.8 mm / 2 in</td>
<td>76 mm / 3 in</td>
<td>MAX OD: 13 in</td>
<td>5,767 pcs/reel</td>
<td>-40 °C to 85 °C / -40 °F to 185 °F</td>
<td>Non metal</td>
<td>ARC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RF101073 / IL-605485</td>
<td>Label</td>
<td>44.45 x 19.05 mm / 1.75 x 0.75 in</td>
<td>3pt Paper</td>
<td>12.8 – 14.8 mils / 325.12 – 375.92 microns</td>
<td>38.1 mm / 1.5 in</td>
<td>50.8 mm / 2 in</td>
<td>76 mm / 3 in</td>
<td>MAX OD: 8 in</td>
<td>1,941 pcs/reel</td>
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<td></td>
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<td></td>
<td></td>
<td>RF101072 / IL-606783</td>
<td>Label</td>
<td>44.45 x 19.05 mm / 1.75 x 0.75 in</td>
<td>5pt Paper</td>
<td>14.5 – 16.5 mils / 368.3 – 419.1 microns</td>
<td>38.1 mm / 1.5 in</td>
<td>50.8 mm / 2 in</td>
<td>76 mm / 3 in</td>
<td>MAX OD: 8 in</td>
<td>1,740 pcs/reel</td>
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</tbody>
</table>

### Orientation sensitivity

All graphs are indicative: performance in real life applications may vary.

### Read range

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Read Distance (m), Calculated</th>
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<tbody>
<tr>
<td>800</td>
<td>AD-327 U9 ETSI Pure 95 Freespace</td>
</tr>
<tr>
<td>900</td>
<td>AD-327 U9 ETSI Pure 95 Cardstock</td>
</tr>
<tr>
<td>1000</td>
<td>AD-327 U9 ETSI Pure 95 2 Denim</td>
</tr>
<tr>
<td>1100</td>
<td>AD-327 U9 ETSI Pure 95 2 Polybags</td>
</tr>
<tr>
<td>1200</td>
<td>AD-327 U9 ETSI Pure 95 2 T-Shirts</td>
</tr>
<tr>
<td>1300</td>
<td>AD-327 U9 ETSI Pure 95 Glass</td>
</tr>
</tbody>
</table>

Contact information

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Connect with us on: [LinkedIn], [Facebook], [Instagram]

[Reach Compliance], [RoHS]

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**Warranty:** Please refer to Avery Dennison standard terms and conditions: rfid.averydennison.com/termsandconditions

**Care and handling:** RFID inlays are sensitive to ESD. Observe standard industry practices relating to electronics / RFID to keep environmental impact and static charge to a minimum.

**Applications:** This product should be tested by the customer / user thoroughly under end use conditions to ensure the product meets the particular requirements. Avery Dennison does not represent that this product is fit for any particular purpose or use. Avery Dennison reserves the right to modify, change, supplement or discontinue product offerings at any time without notice. The information contained herein is believed to be reliable but Avery Dennison makes no representation concerning the accuracy or correctness of the data.