



ALN-9714 “Bio” Vial/Ampule Inlay

The Alien Technology® ALN-9714 “Bio” RFID inlay is designed for use in pharmaceutical applications, especially glass vials or ampules containing fluids or powders.



Applications

- Pharmaceuticals
- Healthcare
- Vials/ampules
- Small glass objects
- Small liquid filled objects

| FEATURE | DESCRIPTION | BENEFIT |
|--|--|---|
| Small form factor, non-near field read tag | Despite its diminutive size (15 x 17mm), this tag uses conventional long range UHF antenna to provide larger read range. | Offers read/write distances compatible with usage in pharmaceutical production facilities and handheld reader usage for logistics and supply chain. |
| Tuned for placement on glass containing water or oil based fluids. | Designed to provide 30 cm / 12” or greater read distance even when applied to vials containing water based fluids. | |
| Next generation Higgs™ 4 features and performance | A mass-market optimized tag with class leading read and write performance. Supports Aliens <i>QuickWrite™</i> and <i>BlastWrite™</i> | Rapid programming of serialized tags and excellent read/write performance |

Features:

- › Designed to meet EPCglobal Gen2 (V1.2.0) and ISO/IEC 18000-6C
- › Worldwide operation in the RFID UHF bands (840-960 MHz)
- › 448-Bits of NVRAM Memory
 - 128-EPC Bits
 - 128 User Bits
 - 64 Bit Unique TID
 - 32 Bit Access and 32 bit Kill Passwords
- › Pre-Programmed with a unique, unalterable 64-bit serial number
- › User Memory can be Block Perma-Locked as well as read password protected in 32 Bit Blocks
- › Class leading read and write performance
- › *BlastWrite™* and *QuickWrite™* mass-encoding
- › Dynamic Authentication™ - anti-cloning/anti-counterfeit technology
- › Available in high-yield, high capacity dry/wet inlay rolls

Product Overview:

Powered by Alien®’s break-through **Higgs™ 4 UHF RFID IC** and **innovative “Bio” antenna design**, the ALN-9714 delivers industry leading EPC Gen 2 performance and reliability for pharmaceutical, Healthcare and chemical tracking applications especially when tagging compact glass vials.

With its Higgs-4 core, the Bio delivers next generation read and write performance, yet is completely **optimized for the highest volume applications.**

An optimized memory footprint includes a 32-bit TID, a **64-bit Unique TID for authentication** and **next generation serialization** applications, a 128-bit EPC memory bank, 128-bits of user memory for distributed data applications, and **password protected read and write** support capabilities to prevent unauthorized viewing and modification of the tag’s data.

ALN-9714 inlays are World Tag compliant, enabling consistent operation across the diverse frequencies of the Americas, Europe, Middle East, Asia, and Africa.

For more information, visit: www.rfidcanada.com Email:

info@rfidcanada.com

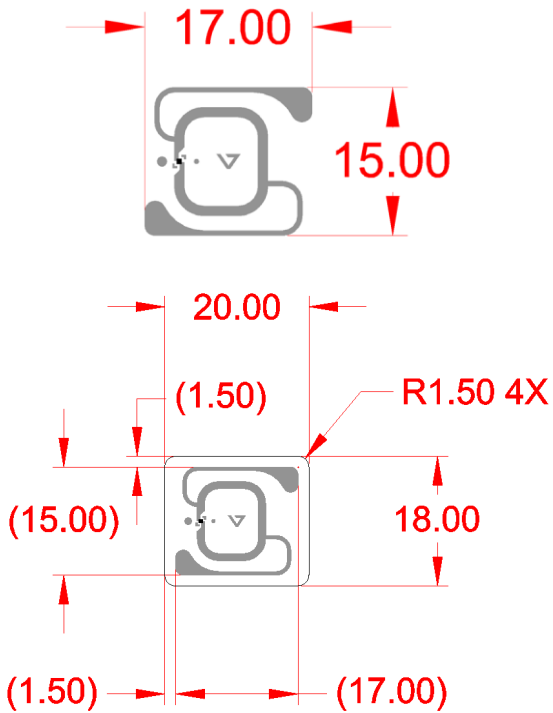
+1 905-513-8919



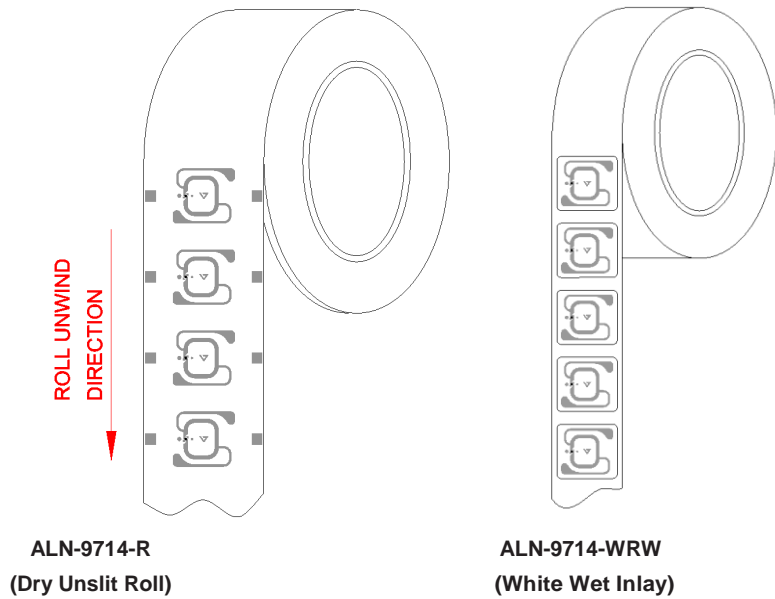


All dimensions in millimeters unless specified otherwise

ALN-9714 Antenna Size

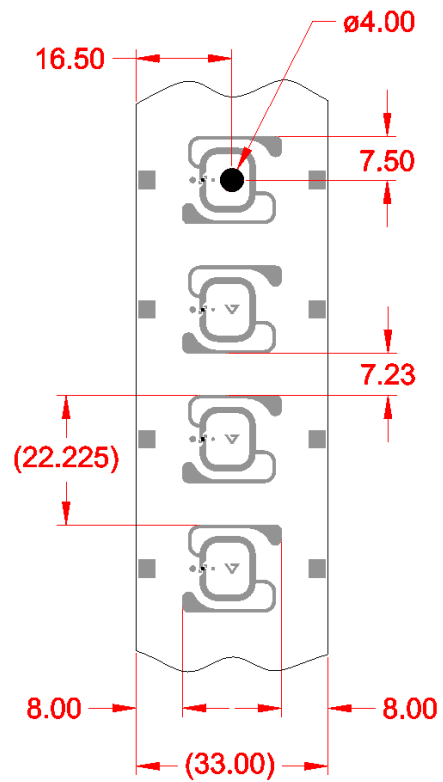


ALN-9714 Inlay Orientation

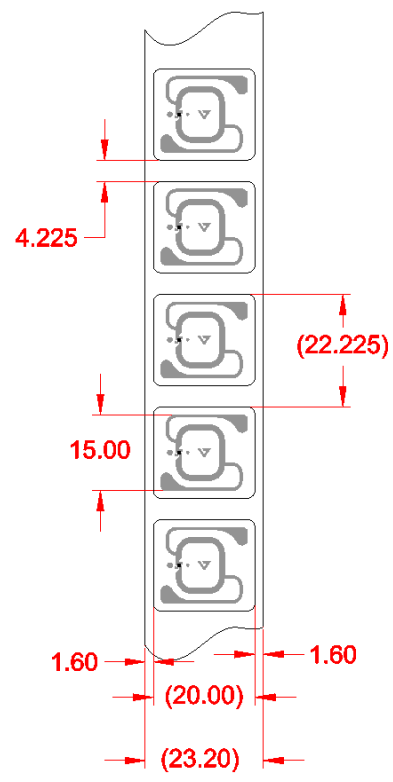


Standard Alien Inlay rolls unwind with metal antenna side facing outward, with respect to the core.

ALN-9714 Inlay Specification



ALN-9714-R
(Dry Unslit Roll)



ALN-9714-WRW
(White Wet Inlay)

For more information, visit: www.rfidcanada.com Email:

info@rfidcanada.com

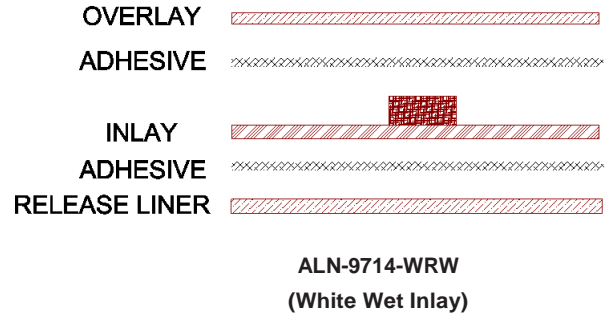
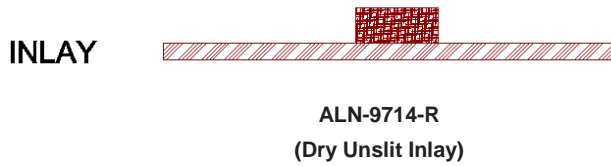
+1 905-513-8919



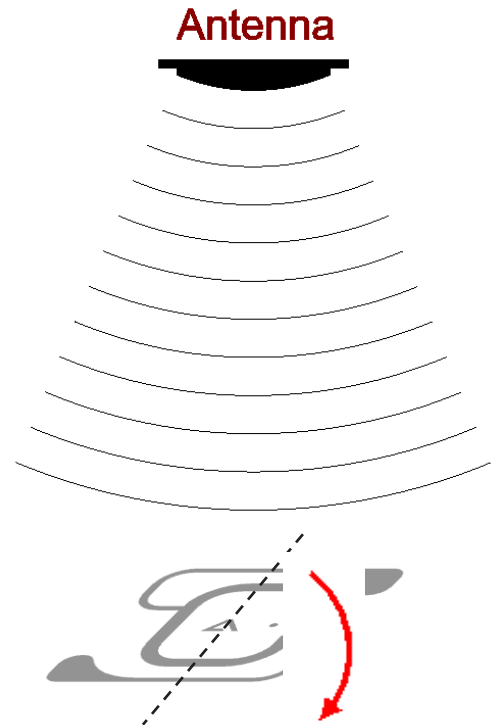
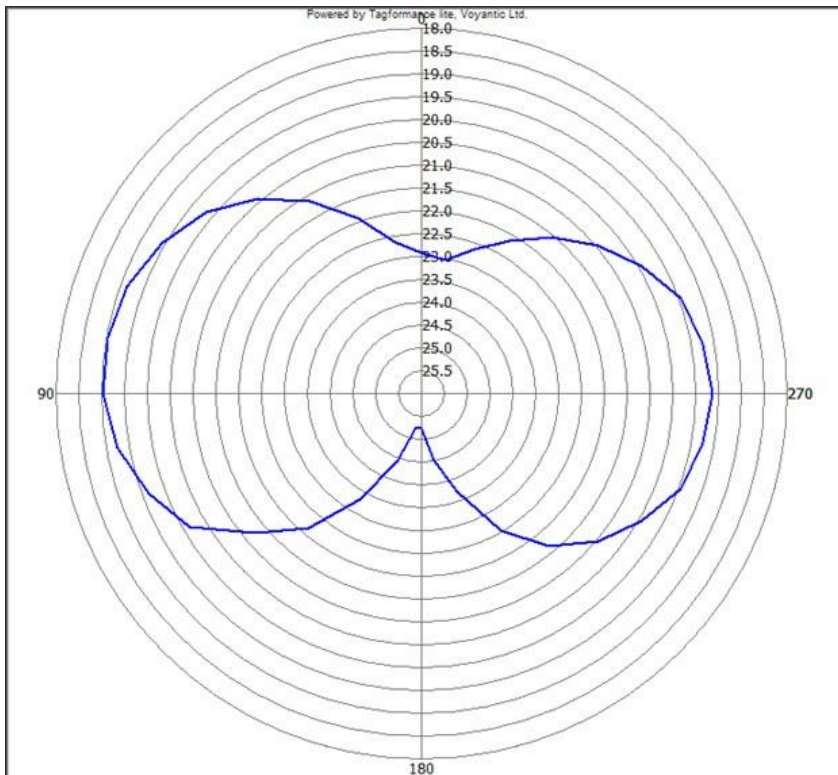
ALN-9714 Inlay Stackup

| DRY INLAY THICKNESS, ±10% | |
|---------------------------|---------|
| OVER ANTENNA | 0.05 mm |
| OVER CHIP | 0.25 mm |

| WHITE WET INLAY THICKNESS, ±10% | |
|---------------------------------|---------|
| OVER ANTENNA | 0.16 mm |
| OVER CHIP | 0.36 mm |



ALN-9714 Inlay Angular Sensitivity





ALN-9714 Bio Inlay

ALN-9714 Specifications

Dry Inlay

| | |
|--------------------|------------------|
| Antenna Width | 0.67" [17mm] |
| Antenna Length | 0.59" [15mm] |
| Web Width | 1.3" [33.0mm] |
| Web Pitch | 0.875" [22.23mm] |
| Core Width | 1.3" [33.0mm] |
| Core ID | 6" [152.4mm]* |
| Core Material | Fiberboard |
| Inlays per Roll | 12,500 Nominal |
| Maximum Roll OD | < 12" [304.8mm] |
| Roll Labeling Data | Roll #, Quantity |

Wet Inlay

| | |
|----------------------------------|------------------------------------|
| Inlay Width | 0.79" [20mm] |
| Inlay Length | 0.71" [18mm] |
| Web Width | 0.91" [23.2mm] |
| Web Pitch | 0.875" [22.225mm] |
| Core Width | 0.91" [23.2mm] |
| Core ID | 6" [152.4mm]* |
| Core Material | Fiberboard |
| Inlays per Roll | 12,500 Nominal |
| Maximum Roll OD | < 16" [406.4mm] |
| Roll Labeling Data | Roll #, Quantity |
| White | TT Printable White Film Only |
| Overlay Adhesive | General Purpose Permanent |
| Inlay Adhesive | General Purpose Permanent |
| Adhesive Application Temperature | > +25°F [-4°C] |
| Adhesive Service Temperature | -40°F to +200°F [-40°C to +93.3°C] |
| Release Liner | 40# SCK |

Environmental

| | |
|---------------------|--|
| Shelf Life | Dry Inlays: 5 years at +77°F [+25°C] @ 40% RH Wet Inlays: 2 years at +77°F [+25°C] @ 40% RH |
| Recommended Storage | +77°F [+25°C] @ 40% RH |
| Storage Limits | -13°F to 122°F [-25°C to +50°C] 20% to 90% RH Non-condensing |
| Operating Limits | -40°F to +158°F [-40°C to +70°C] 20% to 90% RH Non-condensing |
| Bend Diameter | > 1.97" [50mm] |
| Pressure | < 5N/mm ² |
| Drop Resistance | Per ASTM D5276 |
| Write Cycles | 100,000 @ 25°C |
| RoHs | 2002/95/EC, 2005/618/EC, 2011/65/EU Compliant |
| REACH | 1907/2006/EC Compliant (SVHC and ECHA) |
| ESD Limit—HBM / CDM | 5.0kV / 1.5kV |

RFID

| | |
|---------------------|---|
| Protocols Supported | ISO/IEC 18000-6C EPCglobal Class 1 Gen 2 |
| Integrated Circuit | Alien Higgs-4 |
| Operating Frequency | 840–960 MHz |
| EPC Size | 128 Bits |
| User Memory | 128 Bits |
| TID | 32 Bits |
| Unique TID | 64 Bits |
| Access Password | 32 Bits |
| Kill Password | 32 Bits |

* Shipped with 6" to 3" plastic core adapter

July 5, 2016

Copyright© 2016 Alien Technology LLC. All rights reserved.

Alien, Alien Technology, the Alien Technology logo, Spider, Higgs, Dynamic Authentication, QuickWrite, BlockWrite, Squiggle, and the Squiggle logo are trademarks or registered trademarks of Alien Technology Corporation in the U.S. and other countries.

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.

This product is covered by one or more of the following U.S. patents: 7967204, 7931063, 7868766, 7737825, 7716208, 7716160, 7688206, 7659822, 7619531, 7615479, 7598867, 7580378, 7576656, 7562083, 7561221, 7559486, 7559131, 7554451, 7551141, 7542301, 7542008, 7531218, 7522055, 7500610, 7489248, 7453705, 7425467, 7417306, 7411503, 7385284, 7377445, 7364084, 7353598, 7342490, 7324061, 7321199, 7301458, 7295114, 7288432, 7265675, 7262686, 7260882, 7253735, 7244326, 7218527, 7214569, 7199527, 7193504, 7173528, 7172910, 7172789, 7141176, 7113250, 7101502, 7080444, 7070851, 7068224, 7046328, 6998644, 6988667, 6985361, 6980384, 6970219, 6952157, 6942155, 6933848, 6927085, 6816380, 6780696, 6731353, 6693384, 6683663, 6665044, 6657289, 6623579, 6606247, 6606079, 6590346, 6586338, 6566744, 6555408, 6527964, 6479395, 6468638, 6420266, 6316278, 6291896, 6281038. Other patents pending.

This product is licensed under patents of Round Rock Research, LLC, for use solely with UHF RFID Readers (such as Alien reader products) that are licensed under an agreement with Round Rock Research, LLC.

