



Alien ALN 9714 WRW UHF RFID TAG

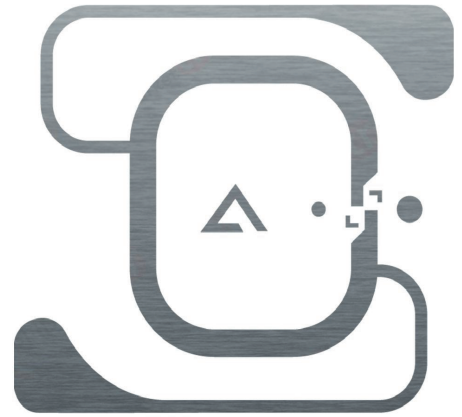
Model: ALN-9714

> Applications

- 1 Pharmaceuticals
- 2 Healthcare
- 3 Vials/ampules
- 4 Small glass objects
- 5 Small liquid filled objects

> Features

- 1 Designed to meet EPCglobal Gen2 (V1.2.0) and ISO/IEC 18000-6C
- 2 Worldwide operation in the RFID UHF bands (840-960 MHz)
- 3 448-Bits of NVRAM Memory
 - 128-EPC Bits
 - 128 User Bits
 - 64 Bit Unique TID
 - 32 Bit Access and 32 bit Kill Passwords
- 4 Pre-programmed with a unique, unalterable 64-bit serial number (ideal for authentication)
- 5 User Memory can be Block Perma-Locked as well as read password protected in 32 Bit Blocks
- 6 Class leading read and write performance
- 7 Pre-encoded Multivendor Chip Serialization (MCS)
- 8 BlastWrite™ and QuickWrite™ mass-encoding
- 9 Dynamic Authentication™ - anti-cloning/anti-counterfeit technology
- 10 Available in high-yield, high capacity dry/wet inlay rolls



> Descriptions

Powered by Alien®'s break-through Higgs™ TM4 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 Specifications

Dry Inlay

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

Wet Inlay

Inlay Width	0.79 [20 mm]
Inlay Length	0.71 [18 mm]
Web Width	0.91 [23.2 mm]
Web Pitch	0.875 [22.225 mm]
Core Width	0.91 [23.2 mm]
Core ID	6 [152.4 mm]*
Core Material	Fiberboard
Inlays per Roll	12,500 Nominal
Maximum Roll OD	< 16.0 [406.4 mm]
Roll Labeling Data	Roll #, Quantity
White	TT Printable White Film Overlay
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

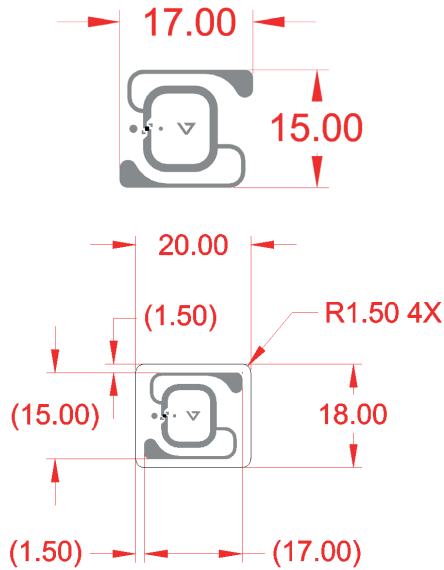
RFID

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

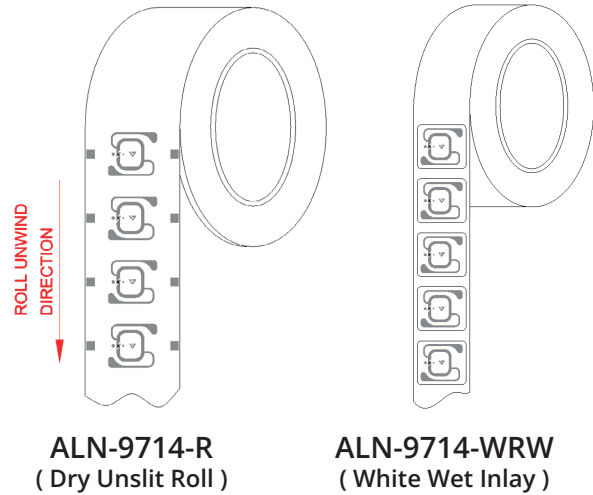
Enviromental

Shelf Life	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 [50 mm]
Pressure	< 5N/mm
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

> ALN-9714 Antenna Size

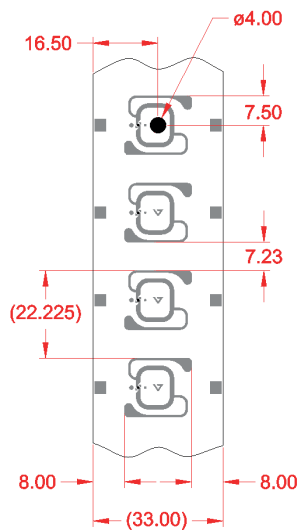


> ALN-9714 Inlay Orientation

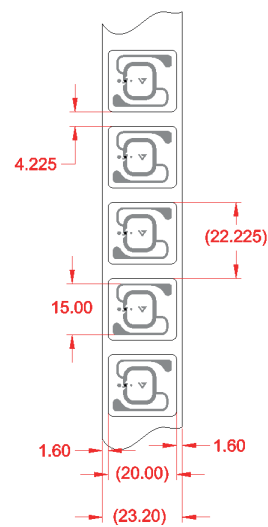


Standard Alien Inlay rolls unwind with metal antenna side facing outward, with respect to the core.

> ALN-9714 Inlay Specification



ALN-9713-R
(Dry Unslit Roll)



ALN-9713-WRW
(White Wet Roll)

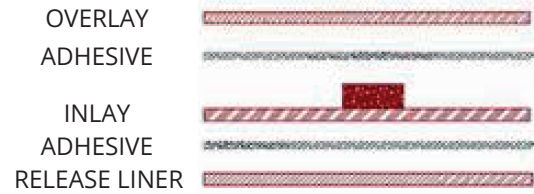
> ALN-9714 Inlay Stackup

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

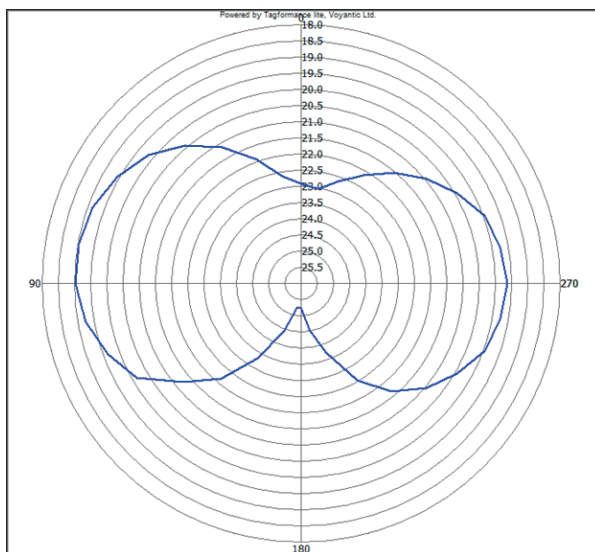


ALN-9714-R
(Dry Unslit / Slit Inlay)

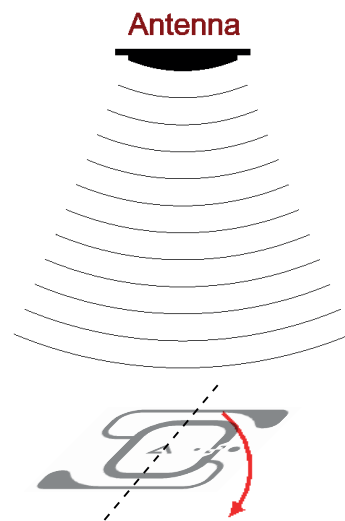


ALN-9714-WRW
(White Wet Inlay)

> ALN-9714 Inlay Angular Sensitivity



Angular Sensitivity
(Relative Read Range vs. Orientation)



Angular Sensitivity
Inlay is rotated in the x, y, plane about the z axis
(tag shown at 0 with respect to face of antenna)



Syringes



Pharmaceutical



Vials/ampoules



Small liquid filled objects