



Alien ALN 9610 UHF RFID Etiket

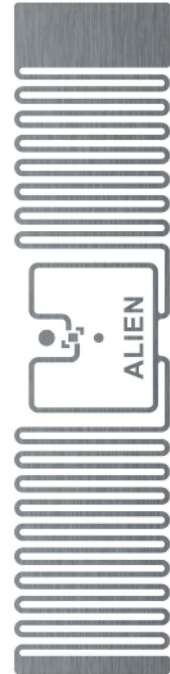
Model: ALN-9610

> Applications

- 1 Apparel, hang tags
- 2 Corrugate cases
- 3 Small package labels
- 4 Shipping labels
- 5 Asset management

> Features

- 1 EPC Gen 2 (v1.2.0) compliant
- 2 ISO/IEC 18000-6C compliant)
- 3 HiggsTM-3 IC with 800-bits of Nonvolatile Memory
 - 32-bit TID
 - 64-bit Unique TID
 - 96-bit EPC Memory, extensible to 480-bits
 - 512-bit User Memory
 - 32-bit Access password
 - 32-bit Kill password
- 4 Worldwide RFID UHF operation (840-960MHz)
- 5 Pre-programmed with a unique, unalterable 64-bit serial number (ideal for authentication)
- 6 User Memory can be Block Perma-Locked
- 7 User Memory can be Read Password protected in 64-bit blocks, prohibiting unintended Reads without an access password
- 8 Supports all Mandatory and Optional Gen 2 commands including item level commands
- 9 Custom commands for high speed programming
- 10 Available in high-yield, high-capacity dry/wet inlay rolls for high volume converting processes



> Descriptions

Powered by Alien's break-through Higgs TM 3 UHF RFID IC and innovative "Squig" antenna design, the ALN- 9610 delivers industry leading EPC Gen 2 performance and reliability in a shorter width than it's bigger brothers, the Squiggle and the Squiglette, making it ideal for apparel and small label applications.

With its Higgs-3 core, the "Squig" delivers excellent performance and a rich feature set expanding the standard 32-bit TID with an additional 64-bit Unique TID for authentication and serialization applications, an extensible EPC memory bank, 512-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-9610 Specifications

Dry Inlay

Antenna Width	1.752 [44.5 mm]
Antenna Length	0.409 [10.4 mm]
Web Width	2.26 [57.5 mm]
Web Pitch	0.625 [15.875 mm]
Core Width	2.26 [57.5 mm]
Core ID	6 [152.4mm]*
Core Material	Fiberboard
Inlays per Roll	20,000 Nominal
Maximum Roll OD	< 12 [304.8mm]
Roll Labeling Data	Roll #, Quantity

* The products and specifications described in this document are subject to change without notice.

Wet Inlay

Inlay Width	1.87 [47.5 mm]
Inlay Length	0.528 [13.4 mm]
Web Width	2.0 [50.8 mm]
Web Pitch	0.625 [15.875 mm]
Core Width	2.0 [50.8 mm]
Core ID	6 [152.4 mm]*
Core Material	Fiberboard
Inlays per Roll	20,000 Nominal
Maximum Roll OD	< 16 [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

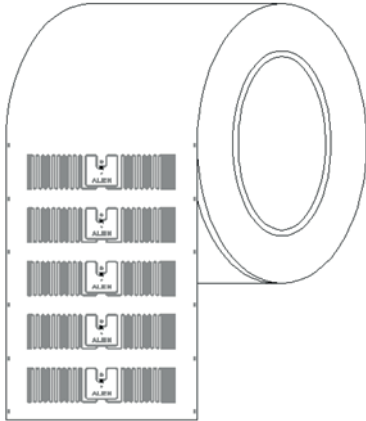
RFID

Protocols Supported	ISO/IEC 18000-6C EPCglobal Class 1 Gen 2
Integrated Circuit	Alien Higgs-3
EPCglobal Certificate	950110126000001084
Operating Frequency	840 - 960 MHz
EPC Size	96 - 480 Bits
User Memory	512 Bits
TID	32 Bits
Unique TID	64 Bits
Access Password	32 Bits
Kill Password	32 Bits

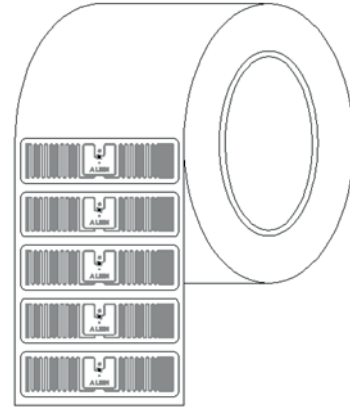
Enviromental

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-9610 Inlay Orientation



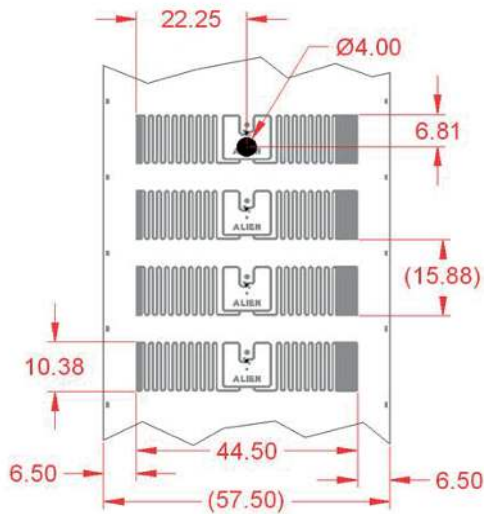
ALN-9610-FR
(Dry Unslit Roll)



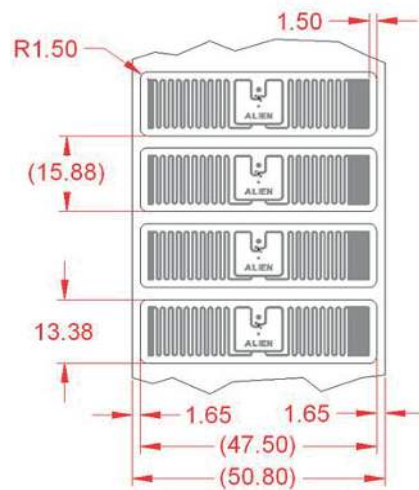
ALN-9728-35 Wet
(White Wet Inlay)

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

> ALN-9610 Inlay Specification



ALN-9610-FR
(Dry Unslit Roll)



ALN-9610-FWRW
(White Wet Inlay)

> ALN-9610 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

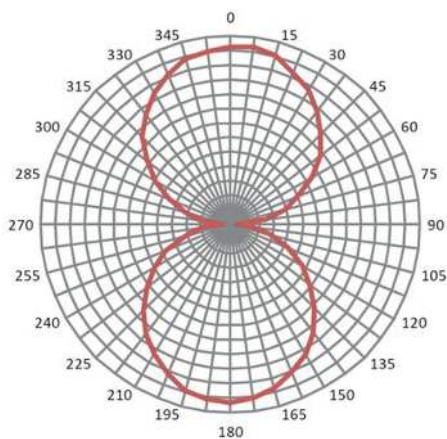


ALN-9610-FR / -FSR
(Dry Unslit Inlay)

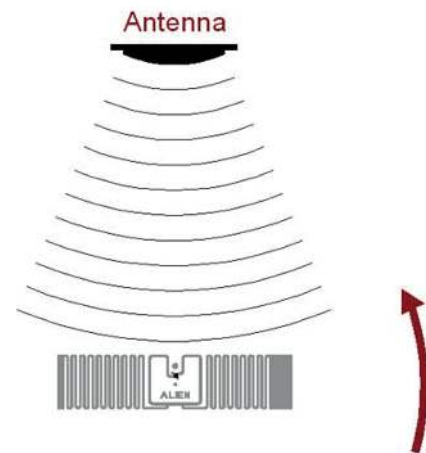


ALN-9610-FWRW
(White Wet Inlay)

> ALN-9610 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)



Shipping Labels



Corrugate Cases



Asset Management



Apparel Hang Tags