

Alien ALN 9630 UHF WRW-T RFID TAG

Model: ALN-9630

> Applications

- 1 Application on plastics
- 2 Asset management
- 3 Apparel hang tags, pallet placard labels
- 4 Corrugate cases, shipping labels

> Features

- 1 Squiggle tag performance in a smaller tag
- 2 Worldwide RFID UHF operation (840-960MHz)
- 3 Higgs-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 Pre-programmed with a unique, unalterable 64-bit serial number (ideal for authentication)
- 5 User Memory can be Block Perma-Locked
- 6 User Memory can be Read Password protected in 64-bit blocks, prohibiting unintended Reads without an access password
- 7 Supports all Mandatory and Optional Gen 2 commands including item level commands
- 8 Custom commands for high speed programming
- 9 Available in high-yield, high-capacity dry/wet inlay rolls for high volume converting processes



> Descriptions

Powered by Alien's break-through Higgs 3 UHF RFID IC and innovative Squiglette antenna design, the ALN-9630 delivers industry leading EPC Gen 2 performance and reliability in a narrower width than its bigger brother, the Squiggle, and makes it ideal for apparel applications.

ALN-9730-E inlays are World Tag compliant, enabling consistent operation across the diverse frequencies of the Americas, Europe, Middle East, Asia, and Africa. With its Higgs-3 core, the Squiglette delivers excellent performance and a rich feature set expanding the standard 32-bit TID with an additional 64-bit Unique

> ALN-9630 Specifications

Dry Inlay

Antenna Width	2.756 [70mm]
Antenna Length	0.374 [9.5 mm]
Web Width (-FR)	3.25 [82.5mm]
Web Width (-FSR)	2.89 [73.5mm]
Web Pitch	0.625 [15.875mm]
Core Width (-FR)	3.25 [82.5mm]
Core Width (-FSR)	2.89 [73.5mm]
Core ID	6 [152.4 mm]*
Core Material	FiberBoard
InterLeaf Material	Paper
InterLeaf Width	1.0 [25.4mm]
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	2.87 [73mm]
Inlay Length	0.5 [12.7mm]
Web Width	3.0 [76.2mm]
Web Pitch	0.625 [15.875mm]
Core Width	3.0 [76.2mm]
Core ID	6 [152.4mm]*
Core Material	Fiberboard
Inlays per Roll	20,000 Nominal
Maximum Roll OD	< 16 [406.4mm]
Roll Labeling Data	Roll #, Quantity
Clear (-FWRC)	PET base without Overlay
White (-FWRW)	TT Printable White Film Only
Overlay Adhesive (-FWRW)	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

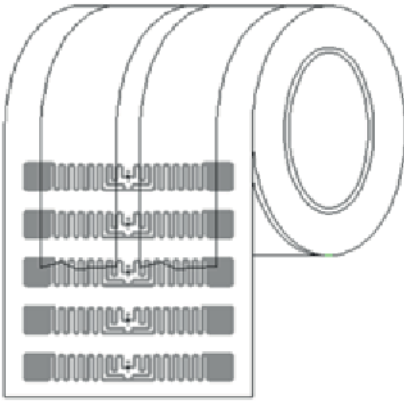
Protocols Supported	ISO/IEC 18000-6C EPCglobal Class 1 Gen 2
Integrated Circuit	Alien Higgs-3
EPCglobal Certificate	950110126000001084
Operating Frequency	840960 MHz
EPC Size	96 - 480 Bits
User Memory	512 Bits
TID	32 Bits
Unique TID	64 Bits
Access Password	32 Bits
Kill Password	32 Bits

* Shipped with 6 to 3 plastic core adapter

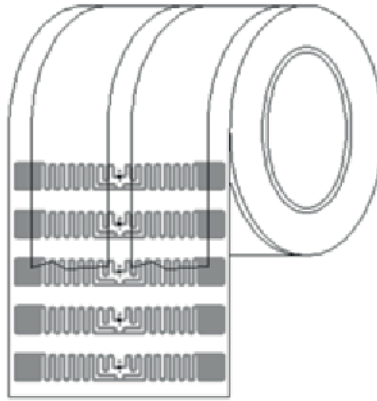
Enviromental

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 [50mm]
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

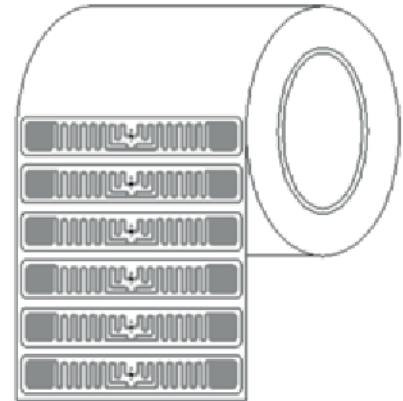
> ALN-9630 Inlay Orientation



ALN-9730-E-R
(Dry Unslit Roll)



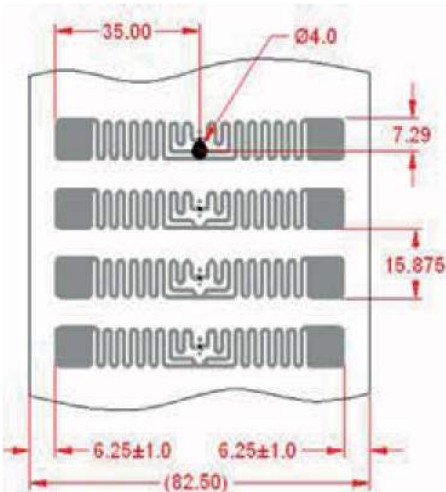
ALN-9730-E-SR
(Dry Slit Roll)



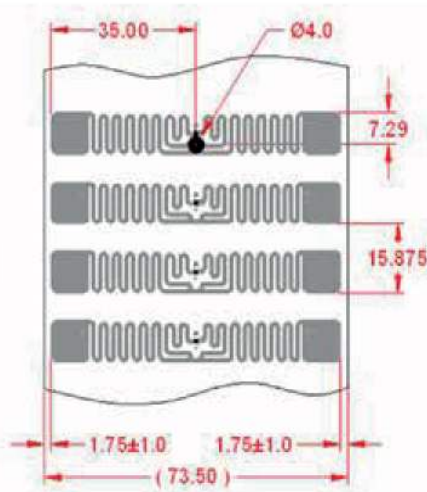
ALN-9730-E-WRC / -WRW
(Clear / White Wet Inlay)

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

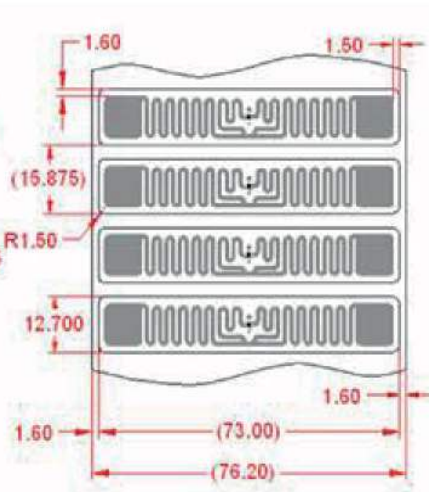
> ALN-9630 Inlay Orientation



ALN-9630-FR
(Dry Unslit Roll)



ALN-9730-FSR
(Dry Unslit Roll)



ALN-9730-FWRC / -FWRW
(Clear / White Unslit Roll)

> ALN-9630 Inlay Stackup

DRY INLAY THICKNESS. +10%	
OVER ANTENNA	0.05 mm
OVER CHIP	0.25 mm

CLEAR WET INLAY THICKNESS. +10%	
OVER ANTENNA	0.08 mm
OVER CHIP	0.28 mm

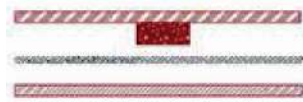
WHITE WET INLAY THICKNESS. +10%	
OVER ANTENNA	0.16 mm
OVER CHIP	0.36 mm

INLAY



INLAY

ADHESIVE
RELEASE LINER



OVERLAY
ADHESIVE

INLAY
ADHESIVE
RELEASE LINER

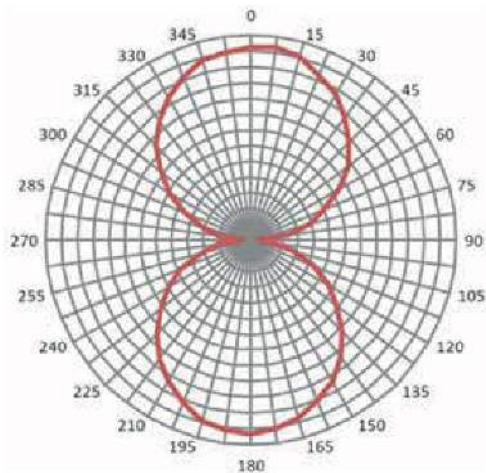


ALN-9630-FR / -FSR
(Dry Unslit / Slit Inlay)

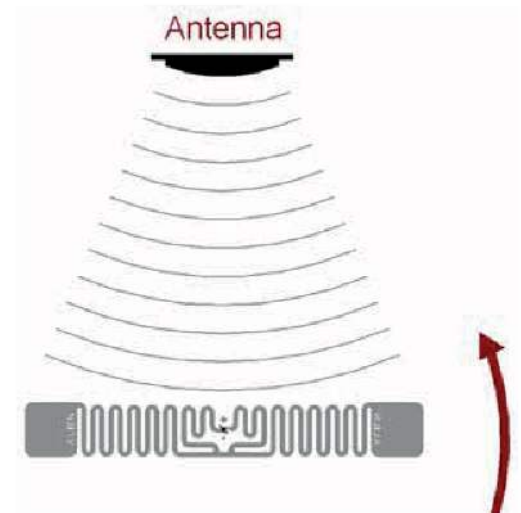
ALN-9630-FWRC
(Clear Wet Inlay)

ALN-9630-FWRW
(White Wet Inlay)

> ALN-9630 Inlay Stackup



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



File Folder Labels



Asset management



Apparel hang tags

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