



# ALN-9662 SHORT INLAY

The Alien Technology® ALN-9662 “Short” RFID inlay is a narrower version of its high-performance, general-purpose Squiggle® sibling.

## Applications



- Corrugate cases
- Pallet cards
- Apparel hang tags
- Application on plastics
- Asset management
- File folder labels
- Shipping labels

FEATURE	DESCRIPTION	BENEFIT
Squiggle tag performance in a narrower form-factor	Equivalent performance to the well-regarded Squiggle tag but in a more compact form-factor. One of Aliens best performing general-purpose tags.	Smaller form-factor, still robust, proven, and reliable
Multiple frequency optimized sensitivity	Optimized for high performance in all world regions	A worldwide performance tag

## Features:

- > EPC Gen 2 (v1.2.0) compliant
- > ISO/IEC 18000-6C compliant
- > Worldwide RFID UHF operation (840-960MHz)
- > 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
- > Pre-programmed with a unique, unalterable 64-bit serial number (ideal for authentication)
- > User Memory can be Block Perma-Locked
- > User Memory can be Read Password protected in 64-bit blocks, prohibiting unintended Reads without an access password
- > Supports all Mandatory and Optional Gen 2 commands including item level commands
- > Custom commands for high speed programming
- > Available in high-yield, high-capacity dry/wet inlay rolls for high volume converting processes

## Product Overview:

Powered by Alien®’s break-through **Higgs™3 UHF RFID IC** and **innovative Short antenna design**, the ALN-9662 delivers industry leading EPC Gen 2 performance and reliability in a narrower width than it’s bigger brother, the Squiggle®.

ALN-9662 inlays are World Tag compliant, enabling consistent operation across the diverse frequencies of the Americas, Europe, Middle East, Asia, and Africa.

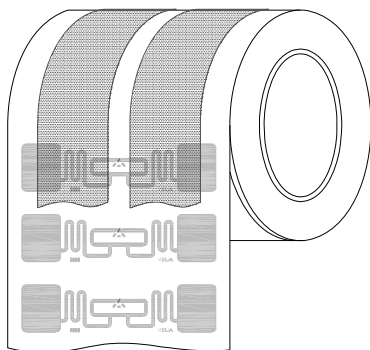
With its Higgs-3 core, the Short delivers excellent performance and a rich feature set including a 32-bit TID, a **64-bit Unique TID for authentication and serialization** applications, an **extensible EPC memory bank, 512-bits of user memory** for distributed data applications, and **password protected read and write** support capabilities to prevent unauthorized viewing and modification of the tag’s data.

Typical applications for the Short include, but are not limited to, corrugate cases, pallet placard labels, apparel hang tags, shipping labels, asset management, file folder labels, and application on plastics.

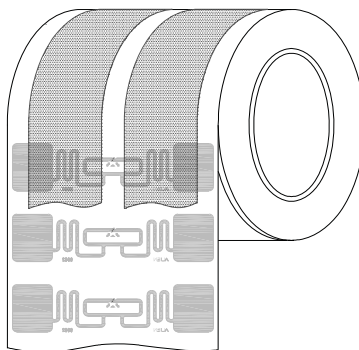


# ALN 9662 Short Inlay

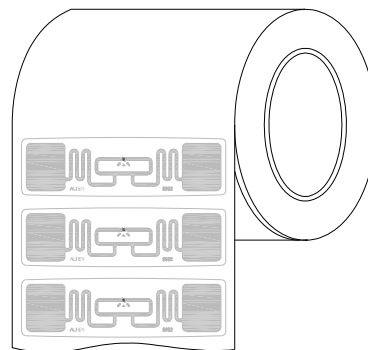
## ALN-9662 Inlay Orientation



**ALN-9662-FRA**  
**(Dry Unslit Roll)**



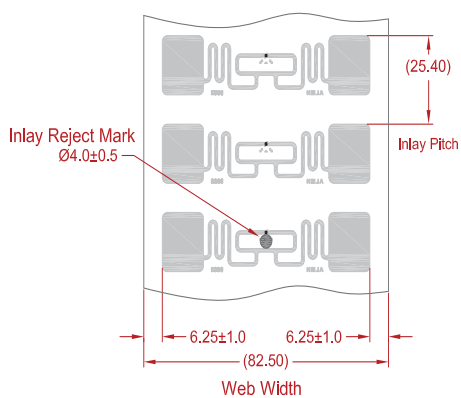
**ALN-9662-FSRA**  
**(Dry Slit Roll)**



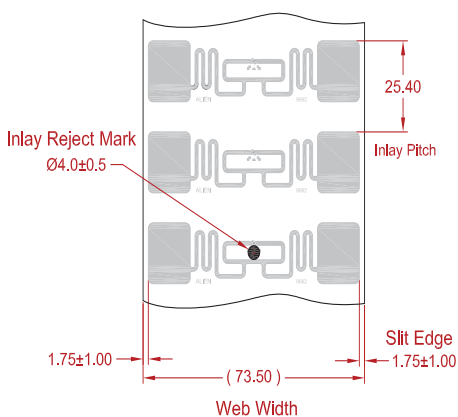
**ALN-9662-FWRCA / FWRWA**  
**(Clear / White Wet Inlay)**

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

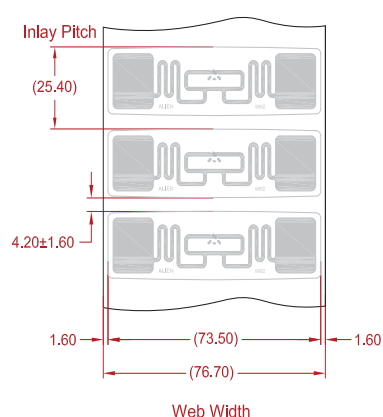
## ALN-9662 Inlay Specification



**ALN-9662-FRA**  
**(Dry Unslit Roll)**



**ALN-9662-FSRA**  
**(Dry Slit Roll)**



**ALN-9662-FWRCA / FWRWA**  
**(Clear / White Wet Inlay)**

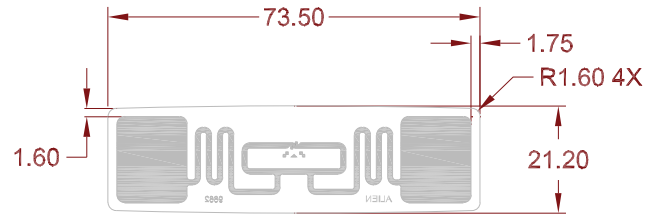


# ALN 9662 Short Inlay

## ALN-9662 Inlay General Dimensions



**ALN-9662-FRA / FSRA**  
(Dry Unslit / Slit Inlay)



**ALN-9662-FWRCA / FWRWA**  
(Clear / White Wet Inlay)

## ALN-9662 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



**ALN-9662-FRA / FSRA**  
(Dry Unslit / Slit Inlay)

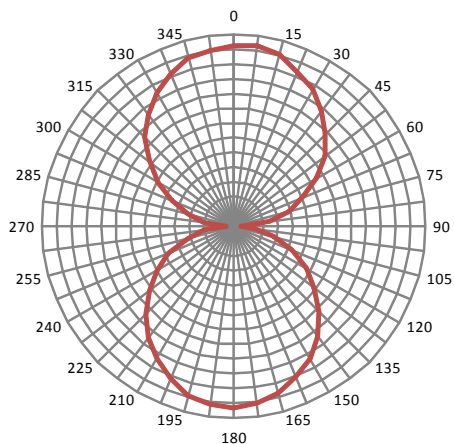


**ALN-9662-FWRCA**  
(Clear Wet Inlay)

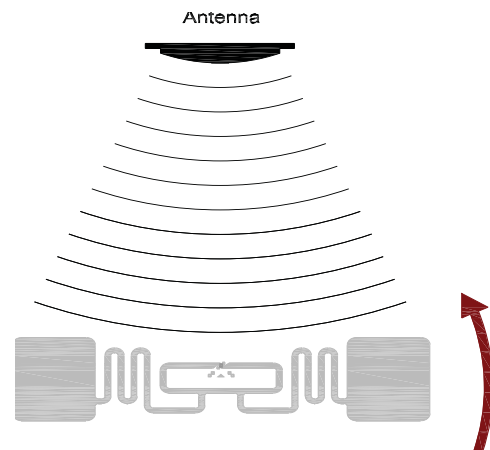


**ALN-9662-FWRWA**  
(White Wet Inlay)

## ALN-9662 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)



## ALN 9662 Short Inlay

### ALN-9662 Specifications

#### Dry Inlay

Antenna Width	2.756" [70mm]
Antenna Length	0.669" [17mm]
Web Width (-FRA)	3.25" [82.5mm]
Web Width (-FSRA)	2.89" [73.5mm]
Web Pitch	1.0" [25.4mm]
Core Width (-FRA)	3.25" [82.5mm]
Core Width (-FSRA)	2.89" [73.5mm]
Core ID	6" [152.4mm]*
Core Material	Fiberboard
Interleaf Material	Paper
Interleaf Width	1.5" [38.1mm]
Inlays per Roll	12,500 Nominal
Maximum Roll OD	< 12" [304.8mm]
Roll Labeling Data	Roll #, Quantity

#### Wet Inlay

Inlay Width	2.96" [73.5mm]
Inlay Length	0.835" [21.2mm]
Web Width (FWRWA)	3.02" [76.7mm]
Web Pitch	1.0" [25.4mm]
Core Width	2.89" [73.5mm]
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
Overlay (-FWRWA)	TT Printable White Film Overlay
Overlay Adhesive (-FWRWA)	General Purpose Permanent
Inlay Adhesive	General Purpose Permanent
Adhesive Application Temperature	> +36.5°F [+2°C]
Adhesive Service Temperature	-4°F to +199.4°F [-20°C to +93°C]
Release Liner	40# SCK

\* Shipped with 6" to 3" plastic core adapter

#### Environmental

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 <sup>2</sup>
Drop Resistance	Per ASTM D5276
Write Cycles	100,000 @ 25°C
RoHs	2002/95/EC Compliant
REACH	1907/2006/EC Compliant
ESD – HBM / CDM	> 5.0kV / > 1.5kV

#### 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

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 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, 7520555, 7500610, 7489248, 7453705, 7425467, 7417306, 7411503, 7385284, 7377445, 7364084, 7353598, 7342490, 7324061, 7321159, 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, 6980184, 6970219, 6952157, 6942155, 6933848, 6927085, 6816380, 6780996, 6731353, 6693384, 6683663, 6665044, 6627289, 6623579, 6606247, 6606079, 6590346, 6586338, 6566744, 6555408, 6527964, 6479395, 6468638, 6420266, 6316278, 6291896, 6281038. Other patents pending.

27th December 2012



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