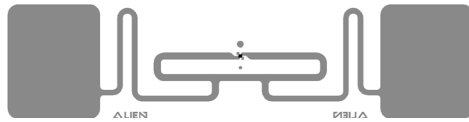# ALN-10062
Short Inlay (Higgs™-10)

The Alien Technology® ALN-10062 "Short" RFID inlay is a narrow, high-performance, Higgs™-10 based member of the Squiggle® family and brings all the Higgs™-10 advantages to highly-effective "Short" Inlay.

Applications

- Volume Retail/Apparel
- Enterprise Wide Asset Management
- Warehouse Management
- Tracking Challenging Materials and Objects

FEATURE	DESCRIPTION	BENEFIT
Next generation Higgs™-10 read/write performance in the highly-efficient "Short" Squiggle family tag	One of Aliens best performing general-purpose tags boosted by Higgs™-10 performance and features.	Highly efficient smaller form-factor tag, still robust, proven and reliable.
Optimized 512 bit memory footprint	Optimized for both high-performance and high-volume applications	Designed to drive down the cost-of-ownership while increasing efficiencies of RFID solutions in large enterprises
New error correcting Sentinel™ Memory and best-In-class reliability.	A unique and robust error correcting memory architecture fixes single bit errors and flags dual bit errors. 200,000 write cycles, two times that of competitors.	Provides customers reassurance the stored data is protected and data loss/corruption minimized. More robust memory for high-write applications.

Features:

- › Worldwide operation in all RFID UHF bands (860-960 MHz)
- › Global GS1 Class 1 Gen 2 (V1.2.0) and ISO/IEC 18000-6C compliance
- › Class leading read and write performance
- › 480 bits of NVRAM Memory
  - Up to 128 EPC bits (96-bits nominal)
  - Up to 32 User bits (with 96 bit EPC)
  - 48 bit Unique TID
  - 32 bit Access and 32 bit Kill passwords
- › User Memory may be Block Perma-Locked as well as read password protected
- › Low power operation for both read and write
- › *Blast*Write™ and *Quick*Write™ mass-encoding
- › Available in high-yield, high capacity dry/wet inlay rolls

Product Overview:

Powered by Alien®'s volume focused Higgs™-10 UHF RFID IC and innovative Short antenna design, the ALN-10062 delivers industry leading EPC Gen 2 read and write performance in a narrower width than it's bigger brother, the Squiggle®.

ALN-10062 inlays are *World Tag* compliant, enabling consistent operation across the diverse frequencies of the Americas, Europe, Middle East, Asia, and Africa.

With its Higgs™-10 core, the Short delivers next generation performance and a rich feature set, yet is completely optimized for the highest volume enterprise, retail, and apparel applications.

Enhanced memory footprint includes **a 48-bit Unique TID for authentication and serialization applications and password protected read and write** support 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.
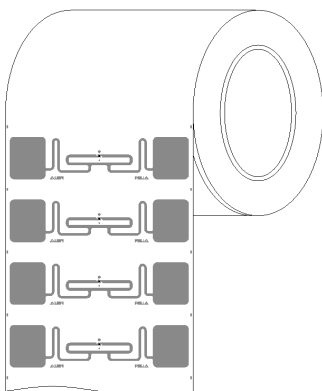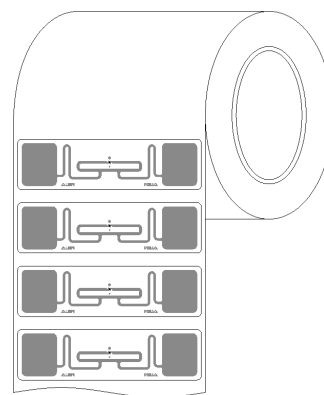
ALN-10062 Inlay Orientation
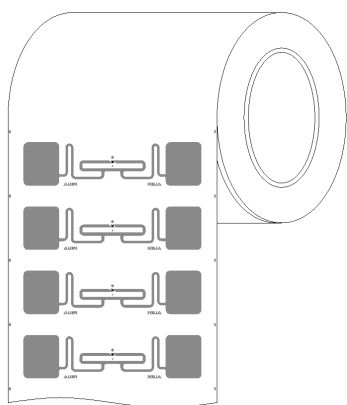
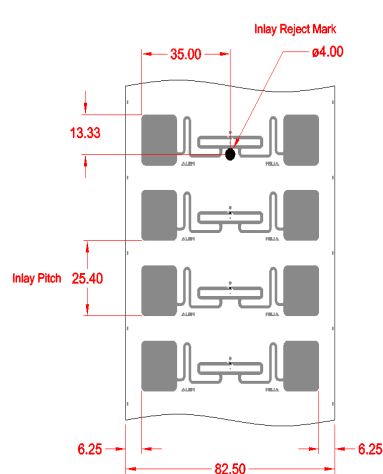

ALN-10062-R
(Dry Unslit Roll)

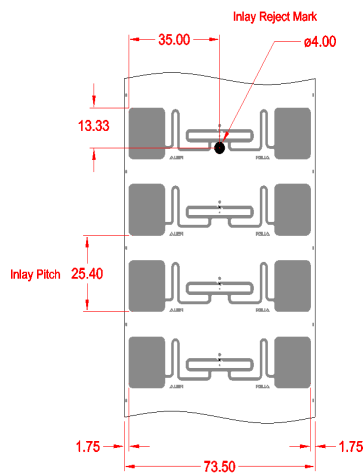**ALN-10062-SR**
(Dry Slit Roll)

ALN-10062-WRW / WRC
(White / Clear Wet Inlay)

Standard Alien Inlay rolls unwind with metal antenna side facing outward, with respect to the core.
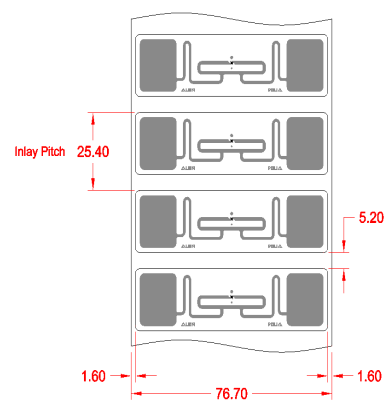
ALN-10062 Inlay Specification
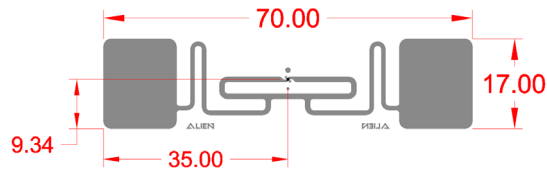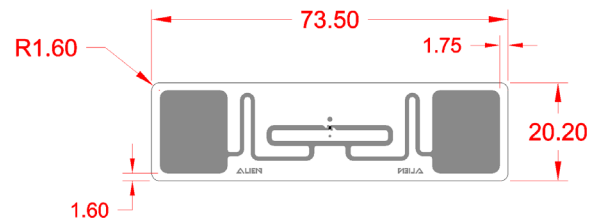

ALN-10062-R
(Dry Unslit Roll)

ALN-10062-SR
(Dry Slit Roll)

ALN-10062-WRW / WRC
(White / Clear Wet Inlay)

ALN-10062 Inlay General Dimensions

70.00

17.00

9.34

35.00

ALN-9862-R / SR
(Dry Unslit / Slit Inlay)

R1.60

73.50

1.75

20.20

1.60

ALN-9862-WRW / WRC
(White / Clear Wet Inlay)

ALN-10062 Inlay Stackup

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

INLAY

ALN-10062-R / SR
(Dry Unslit / Slit Inlay)

CLEAR WET INLAY THICKNESS, ±10%	
OVER ANTENNA	0.08 mm
OVER CHIP	0.28 mm

INLAY

ADHESIVE

RELEASE LINER

ALN-10062-WRC
(Clear Wet Inlay)

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

OVERLAY

ADHESIVE

INLAY

ADHESIVE

RELEASE LINER
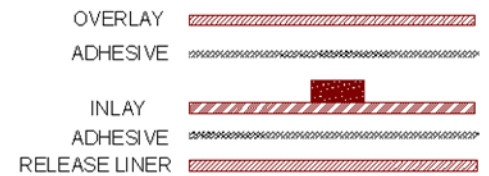
ALN-10062-WRW
(White Wet Inlay)

ALN-10062 Inlay Angular Sensitivity

Powered by Tagformance, Voyantic Ltd.

0

90

270

180
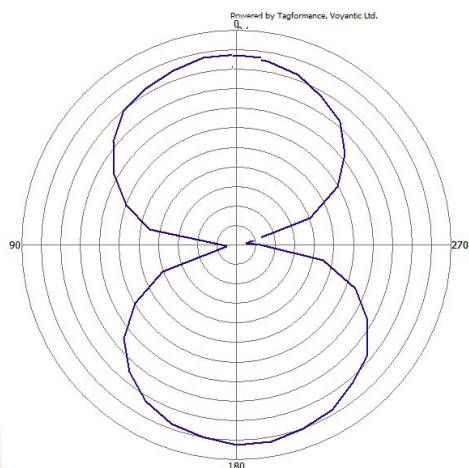
Angular Sensitivity
(Relative Read Range vs. Orientation)
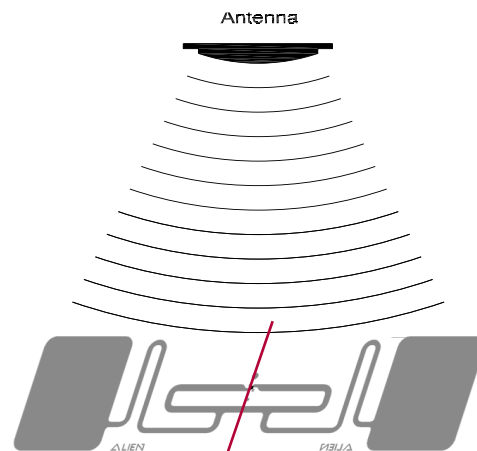
Antenna

Angular Sensitivity
Inlay is rotated in the x, y, plane about the z axis

ALN-10062 Specifications

Dry Inlay

Antenna Width	2.756" [70mm]
Antenna Length	0.669" [17mm]
Web Width (-R)	3.25" [82.5mm]
Web Width (-SR)	2.89" [73.5mm]
Web Pitch	1.0" [25.4mm]
Core Width (-R)	3.25" [82.5mm]
Core Width (-SR)	2.89" [73.5mm]
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	2.89" [73.5mm]
Inlay Length	0.795" [21.2mm]
Web Width	3.02" [76.7mm]
Web Pitch	1.0" [25.4mm]
Core Width	2.874" [73.0mm]
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	TT Printable White Film Overlay
Overlay Adhesive	General Purpose Permanent
Inlay Adhesive	General Purpose Permanent
Adhesive Application Temperature	> +25ºF [-4ºC]
Adhesive Service Temperature	-40ºF to +200ºF [-40ºC to +93.3ºC]
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	+77ºF [+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	200,000 @ 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™-10
Operating Frequency	860–960 MHz
EPC Size	Up to 128 Bits
User Memory	32 Bits(w/96 Bits EPC)
TID	32 Bits
Unique TID	80 Bits
Access Password	32 Bits
Kill Password	32 Bits

* Shipped with 6" to 3" plastic core adapter

July 28, 2016