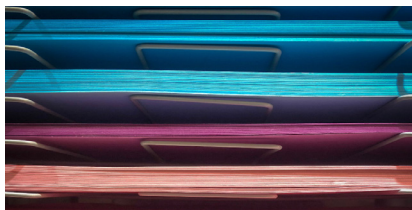




ALN-10041

"Doc" Document Inlay (Higgs™ -10)

Built for dense stacked files & documents the Alien Technology® ALN-10041 "Doc" RFID inlay is designed for operation in close proximity to each other allowing you to find the document you need, when you need it.



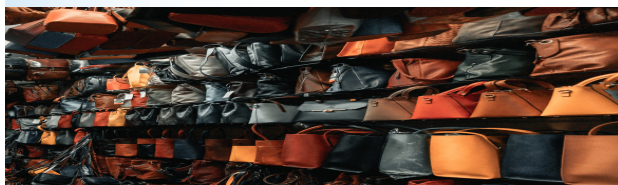
Applications

- Stacked paper/cardboard
- Documents
- File folders
- Envelopes

FEATURE	DESCRIPTION	BENEFIT
Dielectrically matched to papers, cardboards and similar printed stock.	Allows tagging of documents, files, booklets and paper products.	Allows tags to be placed on documents or files where these documents will be tightly packed together with many tags in close proximity to each other. These tags have minimal chance of shadowing (hiding each other) from the reader.
Tolerant to close placement of multiple tags.	Designed to reduce shadowing of one tag over another.	
Next generation Higgs™ 10 features and performance	A mass-market optimized tag with class leading read and write performance.	Rapid programming of serialized tags and excellent read/write performance

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
- › *BlastWrite™* and *QuickWrite™* mass-encoding
- › Available in high-yield, high capacity dry/wet inlay rolls



Product Overview:

Designed for stacked & dense packed documents, folders & other paper goods, the Higgs™-10 UHF RFID IC based "Doc" antenna design, offers superior performance and reliability for tagging of papers, files, documents, folders or other thin and tightly compact wood/organic materials.

Applications include (but not limited to) Legal, Academic, Medical or other:

- Documents
- Certificates
- Folders
- Envelopes

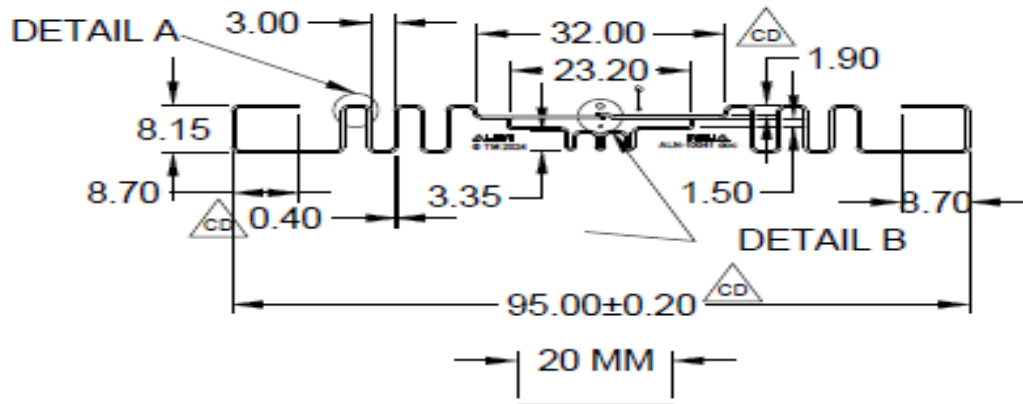
Enhanced memory footprint includes a 48-bit Unique TID for authentication and serialization applications and password protected read and write support to prevent unauthorized viewing and modification of the tag's data.

ALN-10041 inlays are World Tag compliant, enabling consistent operation across the diverse frequencies of the Americas, Europe, Middle East, Asia, and Africa.

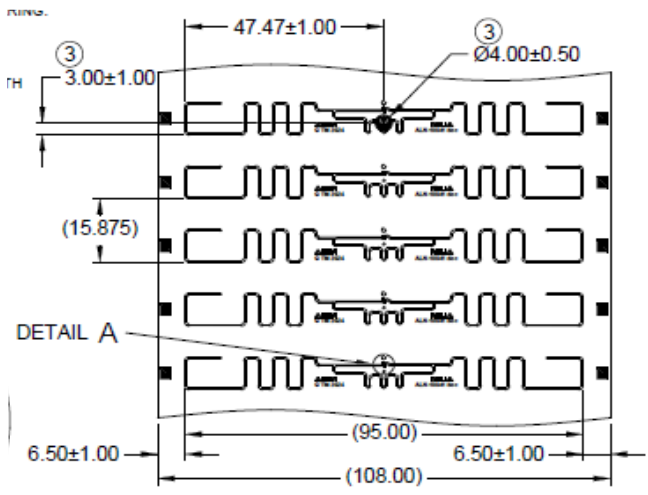


All dimensions in millimeters unless specified otherwise, drawing not to scale

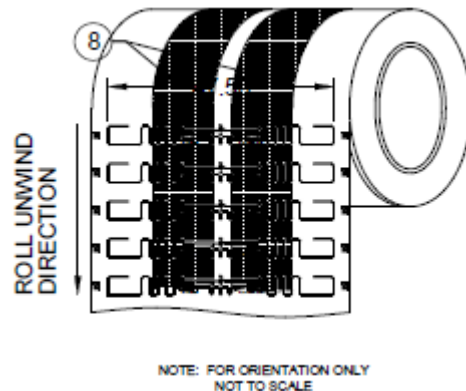
ALN-10041 Antenna Dimansion



ALN-10041-R, Dry Inlay Dimansion, Roll Orientation



ALN-10041-R (Dry Inlay Roll Unslit)



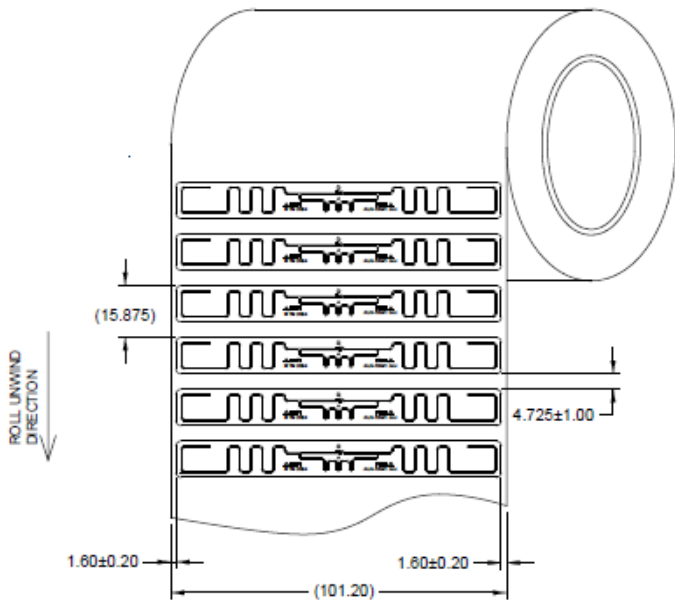
ALN-10041-R Dry Inlay Roll

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

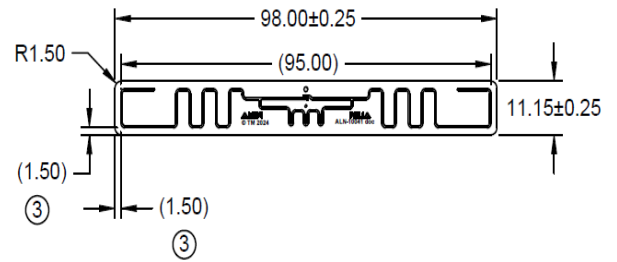


ALN-10041-WRW, WET Inlay Dimansion, Roll Orientation

ALN-10041 Doc Inlay



ALN-10041-WRW (White Wet Inlay)

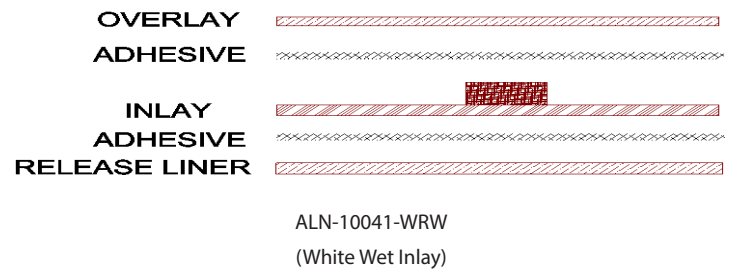
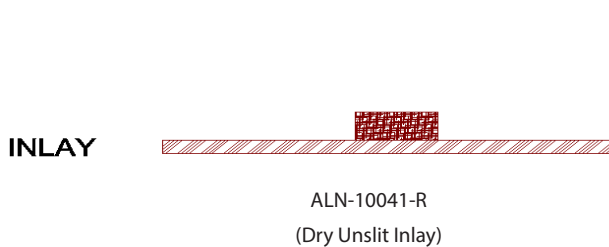


ALN-10041-WRW (White Wet Inlay)

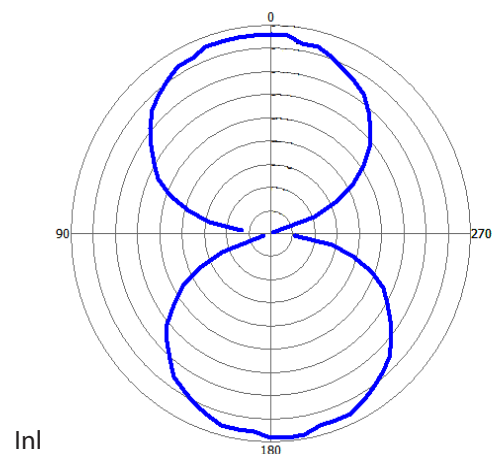
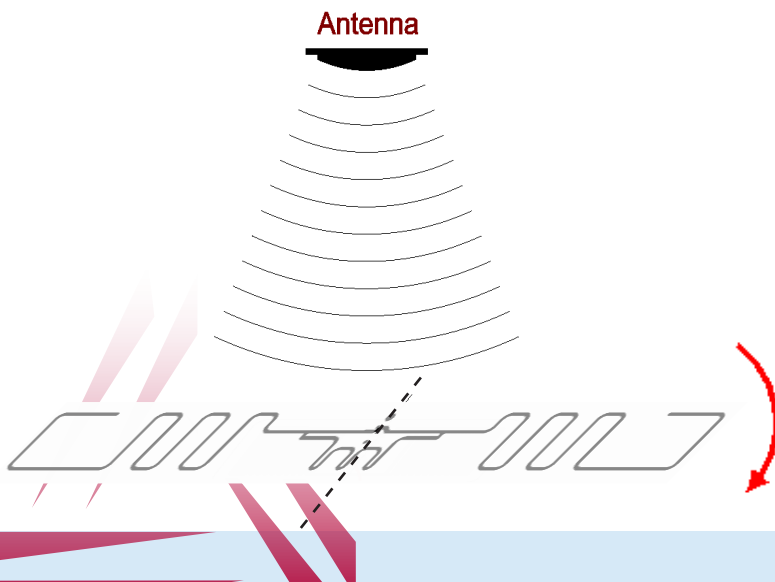
ALN-10041 Inlay Stackup

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-10041 Inlay Angular Sensitivity





ALN-10041 Doc Inlay

ALN-10041 Specifications

Dry Inlay

Antenna Width	3.74" [95mm]
Antenna Length	0.32" [8.15mm]
Web Width	4.25" [108.0mm]
Web Pitch	0.625" [15.875mm]
Core Width	4.25" [108.0mm]
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

Wet Inlay

Inlay Width	3.86" [98.00mm]
Inlay Length	0.44" [11.15mm]
Web Width	3.98" [101.20mm]
Web Pitch	0.625" [15.875mm]
Core Width	4.00" [101.36mm]
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
White	TT Printable White Film Only
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

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	+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 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	840-960 MHz
EPC Size	Up to 128 Bits
User Memory	32 Bits
TID	32 Bits
Unique TID	48 Bits
Access Password	32 Bits
Kill Password	32 Bits

* Shipped with 6" to 3" plastic core adapter

April 05, 2025

Copyright© 2019 Alien Technology LLC. All rights reserved.

Alien, Alien Technology, the Alien Technology logo, Spider, Higgs, Dynamic Authentication, QuickWrite, BlockWrite, Squiggle, and the Squiggle logo are trademarks or registered trademarks of Alien Technology Corporation in the U.S. and other countries.

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, 7522055, 7500610, 7489248, 7453705, 7425467, 7417306, 7411503, 7385284, 7377445, 7364084, 7353598, 7342490, 7324061, 7321159, 7301458, 7295114, 7288432, 7265675, 7262686, 7260882, 7253735, 7244326, 7214569, 7199527, 7193504, 7173528, 7172910, 7172789, 7141176, 7113250, 7101502, 7080444, 7070851, 7068224, 7046328, 6998644, 6988667, 6985361, 6980184, 6970219, 6952157, 6942155, 6933848, 6927085, 6816380, 6780696, 6731353, 6693384, 6683663, 6665044, 6657289, 6623599, 6606247, 6606079, 6590346, 6586338, 6568744, 6555408, 6527964, 6479395, 6468638, 6420266, 6316278, 6291896, 6281038. Other patents pending.

This product is licensed under patents of Round Rock Research, LLC, for use solely with UHF RFID Readers (such as Alien reader products) that are licensed under an agreement with Round Rock Research, LLC.



Alien Technology
300 Piercy Road
San Jose, CA 95138-1030
866-RFID NOW
www.alientechnology.com