



Alien ALN 9627 Dry UHF RFID TAG

Model: ALN-9627

> Applications

- 1 Apparel Hang Tags
- 2 Corrugate Cases
- 3 Small Package Labels
- 4 Shipping Labels
- 5 Asset Management
- 6 File Folder Labels

> Features

- 1 Exceptional performance
- 2 EPC Gen 2 (v1.2.0) compliant
- 3 Higgs™-3 IC with 800-bits of Nonvolatile Memory
 - 128-EPC Bits
 - 128 User Bits
 - 80 Bit Unique TID
 - 32 Bit Access and 32 bit Kill Passwords
- 4 ISO/IEC 18000-6C compliant
- 5 Worldwide RFID UHF operation (840-960MHz)
- 6 Pre-programmed with a unique, unalterable 64-bit serial number (ideal for authentication)
- 7 User Memory can be Block Perma-Locked
- 8 User Memory can be Read Password protected in 64-bit blocks, prohibiting unintended Reads without an access password
- 9 Supports all Mandatory and Optional Gen 2 commands including item level commands
- 10 Custom commands for high speed programming
- 11 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 "H" antenna design, the ALN-9627 delivers industry leading EPC Gen 2 performance in a form factor suitable for small vertical labels and hang tags, which makes it ideal for apparel and small label applications.

With its Higgs-3 core, the "H" 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.

-9627 inlays are World Tag compliant, enabling consistent operation across the diverse frequencies of the Americas, Europe, Middle East, Asia, and Africa.

> ALN-9627 Specifications

Dry Inlay

Antenna Width	1.18 [30.0 mm]
Antenna Length	1.77 [45.0 mm]
Web Width	1.30 [33.0 mm]
Web Pitch	2.00 [50.8 mm]
Core Width	1.30 [33.0 mm]
Core ID	6 [152.4 mm]*
Core Material	Fiberboard
Inlays per Roll	8,000 Nominal
Maximum Roll OD	< 12 [304.8 mm]
Roll Labeling Data	Roll #, Quantity

Wet Inlay

Inlay Width	1.5 [38.1 mm]
Inlay Length	2.25 [57.15 mm]
Web Width	1.625 [41.27 mm]
Web Pitch	2.375 [60.33]
Core Width	1.625 [41.27 mm]
Core ID	3 [76.2 mm]*
Core Material	Fiberboard
Inlays per Roll	2,000 Nominal
Maximum Roll OD	< 8 [203.2 mm] ± 0.25 [6.35 mm]
Roll Labeling Data	Roll #, Quantity
White	TT Printable Paper
Overlay Adhesive	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

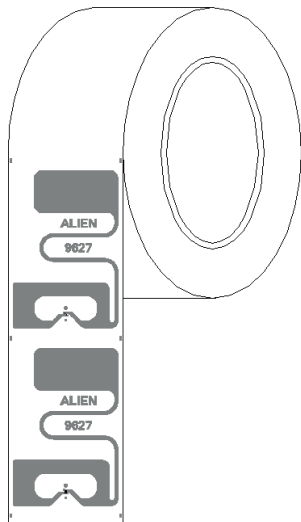
RFID

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

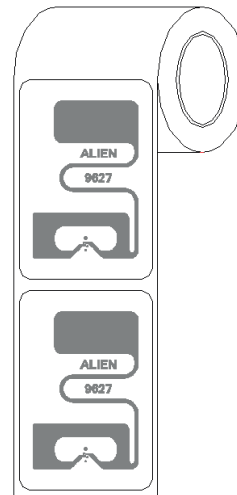
Enviromental

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 ²
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-9627 Orientation

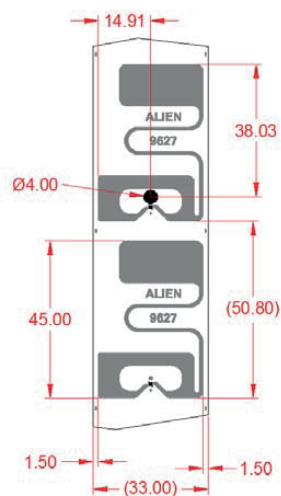


ALN-9627-FSR (Dry Slit Roll)

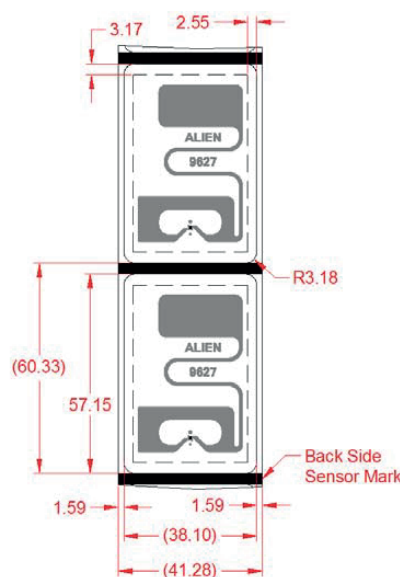


ALN-9627-FWRW (White Wet Roll)

> ALN-9627 Inlay Specification



ALN-9627-FSR
(Dry Slit Roll)



ALN-9627-FWRW
(White Wet Roll)

> ALN-9627 Inlay Stackup

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

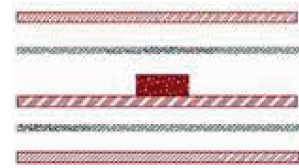
WHITE WET INLAY THICKNESS. +10%	
OVER ANTENNA	0.16 mm
OVER CHIP	0.36 mm

INLAY



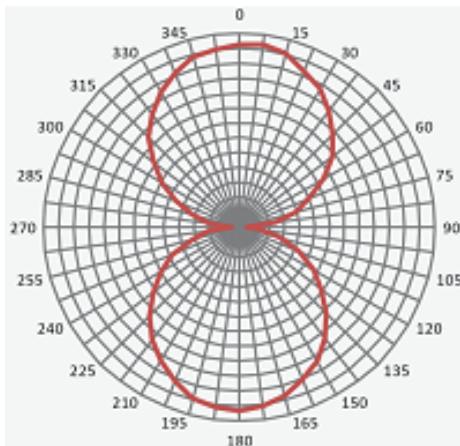
ALN-9627-FSR
(Dry Unslit Roll)

OVERLAY
ADHESIVE
INLAY
ADHESIVE
RELEASE LINER



ALN-9627-FWRW
(White Wet Roll)

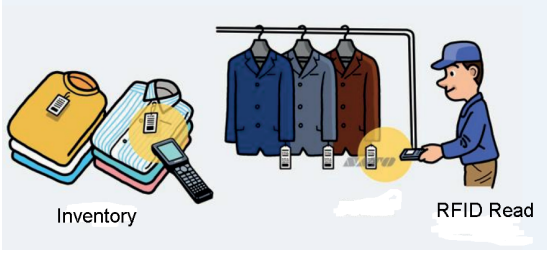
> ALN-9627 Inlay Angular Sensitivity



Angular Sensitivity
(Relative Read Range vs. Orientation)



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



Apparel Hang Tags



Corrugate Cases



File Folders



Asset Management