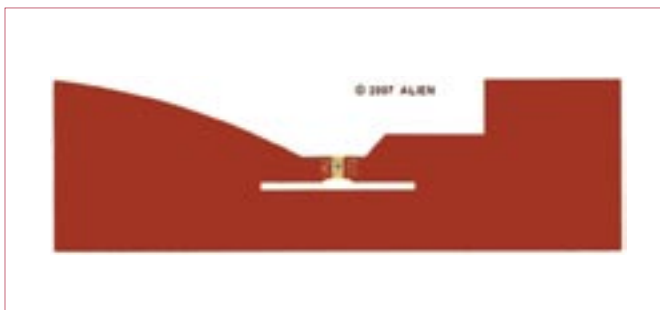




ALN-9554 M Inlay

The Alien Technology® ALN-9554 M Inlays are general purpose RFID inlays optimized for use in tagging plastic totes, pallets and other reusable assets.

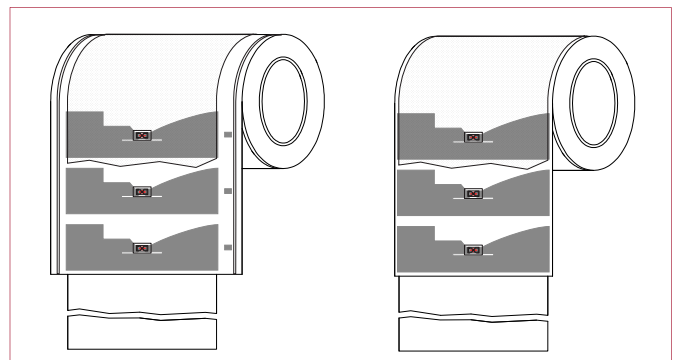


ALN-9554 RFID Inlays

- › EPC Class 1 Gen 2 / ISO 180006C
- › Exception omni-directional range
- › High-speed programming for seamless manufacturing integration
- › Operates at all global frequencies (860-960MHz)
- › Available in high-yield, high-capacity rolls for high-volume converting processes
- › Alien H2 IC

Based on Alien®'s break through Alien H2 UHF RFID IC and a high-performance antenna design, the ALN-9554 delivers industry leading EPC Gen 2 range and reliability at competitive prices. ALN-9554 inlays are also globally compliant, enabling inlays that operate across the diverse frequencies of the Americas, Europe, Middle East, Asia, and Africa.

The ALN-9554 inlay is the best performing member of Alien's family of Alien H2 powered UHF RFID inlays. Other members include: the Squiggle inlay (ALN-9540), Alien's iconic industry best general purpose inlay for use in pallet and case tagging applications; the 2x2 inlay (ALN-9534), an omni-directional inlay for baggage and apparel; and the Squiggle-SQ inlay (ALN-9529) for small item inlays. All members of the family are manufactured using Alien's patented Fluidic Self Assembly (FSA™) process, which delivers high inlay volumes at low unit costs.



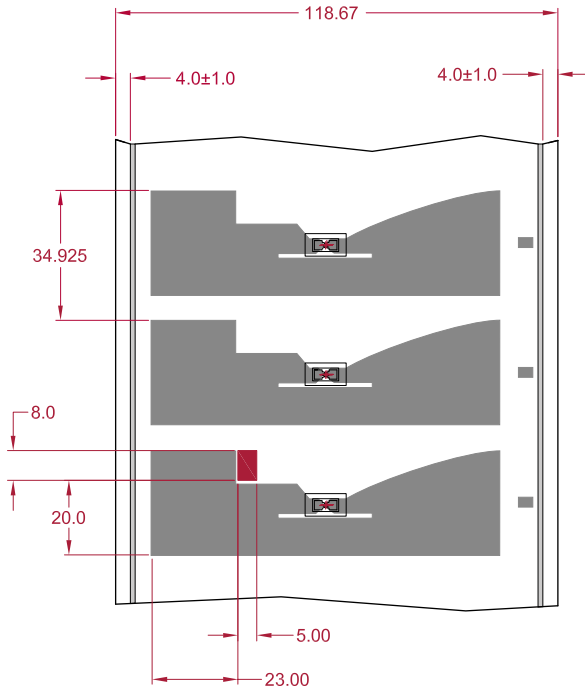
ALN-9554-R (Non-Slit Roll) -
– Standard Alien Inlay rolls unwind with metal antenna side facing out from the core.

ALN-9554-SR (Slit Roll) - Slit inlays have the right and left edge of the web trimmed (slit) off so that the non-antenna features to the left and right are eliminated.

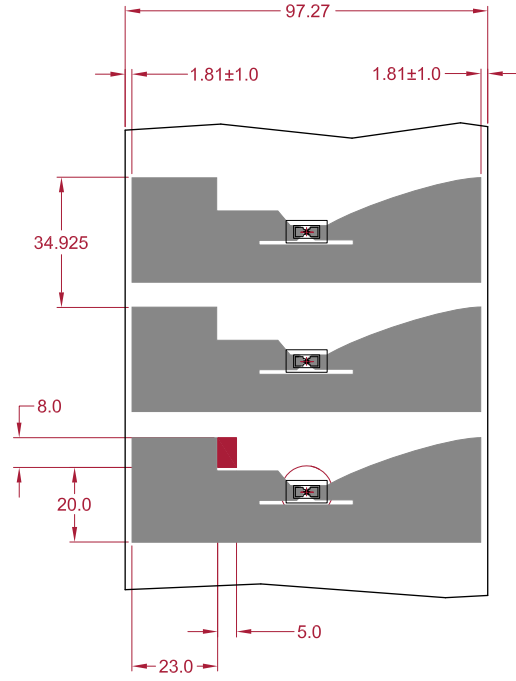


ALN-9554 M Inlay

ALN-9554 Dry Inlay Specification

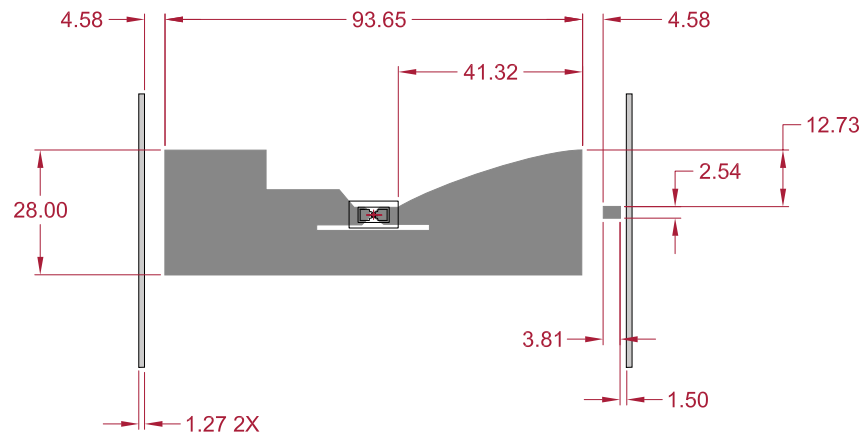


ALN-9554-R (Non-Slit Roll)



ALN-9554-SR (Slit Roll)

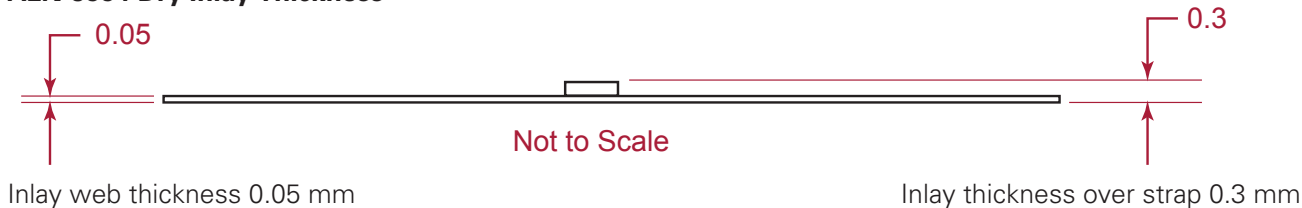
ALN-9554 Inlay General Dimensions





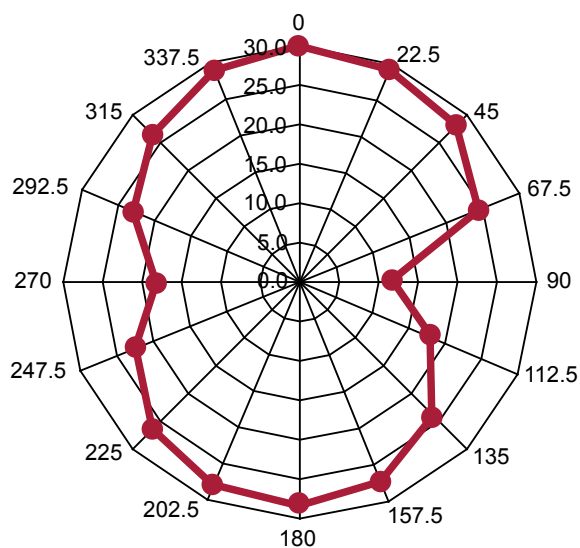
ALN-9554 M Inlay

ALN-9554 Dry Inlay Thickness

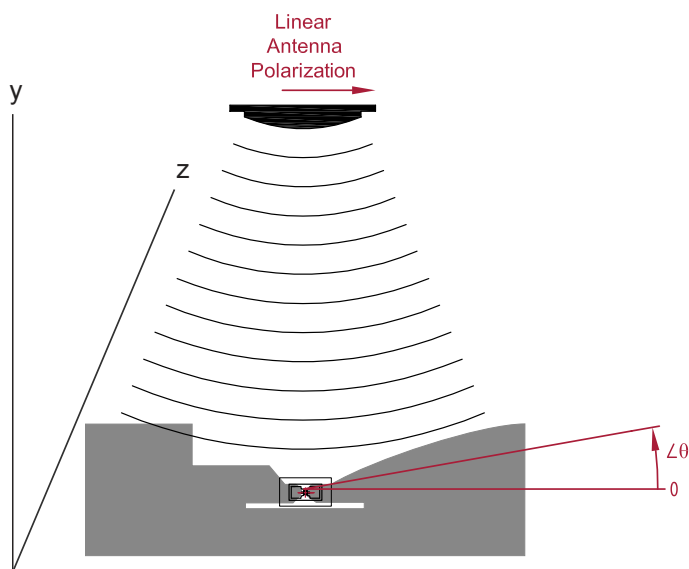


ALN-9554 M Inlay Sensitivity & Orientation

World Tag Angular Sensitivity (dB vs. Angle Position)

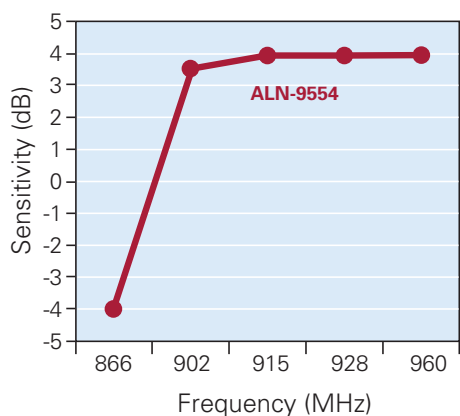


World Tag Relative Orientation
Inlay is rotated in the x, y, plane about the z axis

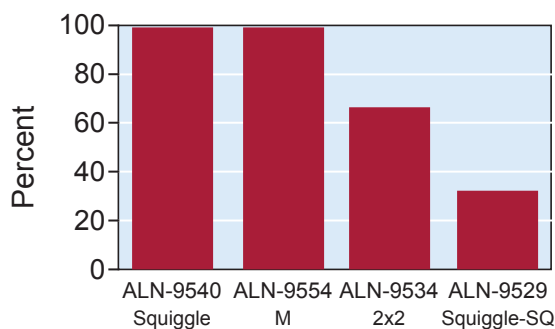


On-Product Performance Information

World Tag Frequency Response in Air
Flat frequency response meets World Tag criteria



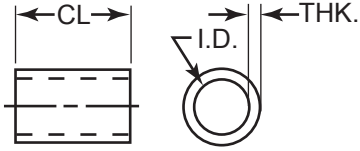
Relative Range Comparison





ALN-9554 M Inlay

ALN-9554 Roll Format/Finishing



Slit Roll Core Dimensions	Non-Slit Roll Core Dimensions
CL = 97.27 (3.83")	CL = 118.67 (4.67")
THK = 6.35 ± .3 (.25 ± .01")	THK = 6.35 ± .3 (.25 ± .01")
I.D. = 152.4 ^{+3.8} _{-1.2} (6.00 ^{+.15} _{-.05} ")	I.D. = 152.4 ^{+3.8} _{-1.2} (6.00 ^{+.15} _{-.05} ")
Material: chipboard or Alien approved material	

Roll Finishing

Leader Length	4,000 +/- 400mm
Interleaf Material	Parchment
Number of Inlay Units Per Roll	15,000 +/- 10%
Roll Labeling Data	Roll Number, Quantity
Roll Leader & Interleaf Width	114.3 +/- 1.5 mm

Environmental Specifications

Shelf Life	2 Years
Recommended Storage Conditions	-25C to +50C 20% to 90% RH Non-condensing
Drop Resistance	Per ASTM D5276
RoHs	2002/95/EC Compliant

RF Protocol

ISO/IEC 18000-6C	
EPC Class 1 Gen 2	
EPC Memory Size	96 Bits
Access Control	32 Bits
Kill Code	32 Bits
Programming Cycles	10,000 Write Cycles

Product Specifications

Worldwide Operating Frequencies	860-960 MHz (US, Europe, Asia, & Japan)
Minimum Inlay Antenna Size	28 x 93.65 mm

ESD & Inlay Handling

Human Body Model	1.5 kV minimum
Charged Device Mode	1.5 kV minimum

Note: Inlays are sensitive to ESD. Observe standard practices to keep environmental static charge to a minimum.

