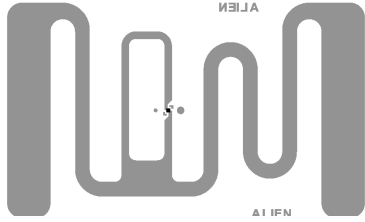




ALN-9728-35 (RE-PITCHED)

“GT” GARMENT TAG INLAY

The Alien Technology® ALN-9728-35 “GT” is a 30mm x 50mm RFID inlay specifically designed for high read performance in the retail and apparel markets. This tag has a form-factor especially suitable for hang-tags.



Applications

- Retail
- Apparel
- Hang-tags
- Joker tags
- Labels
- Document tracking

| FEATURE | DESCRIPTION | BENEFIT |
|--|--|---|
| 30mm x 50mm form-factor | Designed to fit the form-factor and everyday retail use cases where items are tightly packed on shelves or hangers | Extremely high read-rates in real-life, every day retail environments |
| Tuned for use in retail environments with packed shelves or hanging garments | | |
| Next generation Higgs™ 4 features and performance | A mass-market optimized tag with class leading read and write performance. Supports Aliens <i>QuickWrite™</i> and <i>BlastWrite™</i> | Rapid programming of serialized tags and excellent read/write performance |

Features:

- › Designed to meet EPCglobal Gen2 (V1.2.0) and ISO/IEC 18000-6C
- › Worldwide operation in the RFID UHF bands (840-960 MHz)
- › 448-Bits of NVRAM Memory
 - 128-EPC Bits
 - 128 User Bits
 - 64 Bit Unique TID
 - 32 Bit Access and 32 bit Kill Passwords
- › Pre-Programmed with a unique, unalterable 64-bit serial number
- › User Memory can be Block Perma-Locked as well as read password protected in 32 Bit Blocks
- › Class leading read and write performance
- › *BlastWrite™* and *QuickWrite™* mass-encoding
- › Dynamic Authentication™ - anti-cloning/anti-counterfeit technology
- › Exceptional operating range, up to 11m with appropriate antenna.
- › Available in high-yield, high capacity dry/wet inlay rolls

Product Overview:

Powered by Alien®’s break-through **Higgs™ 4 UHF RFID IC** and **innovative “GT” antenna design**, the ALN-9728-35 delivers industry leading EPC Gen 2 performance and reliability for retail and apparel applications where items are tightly packed on shelves or hangers.

With its Higgs-4 core, the “GT” delivers next generation read and write performance, yet is completely **optimized for the highest volume enterprise, retail, and automotive applications.**

An optimized memory footprint includes a 32-bit TID, a **64-bit Unique TID for authentication** and **next generation serialization** applications, a 128-bit EPC memory bank, 128-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.

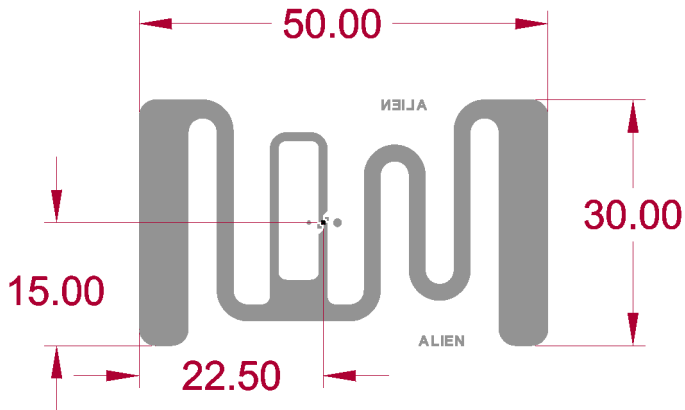
ALN-9728-35 inlays are World Tag compliant, enabling consistent operation across the diverse frequencies of the Americas, Europe, Middle East, Asia, and Africa.



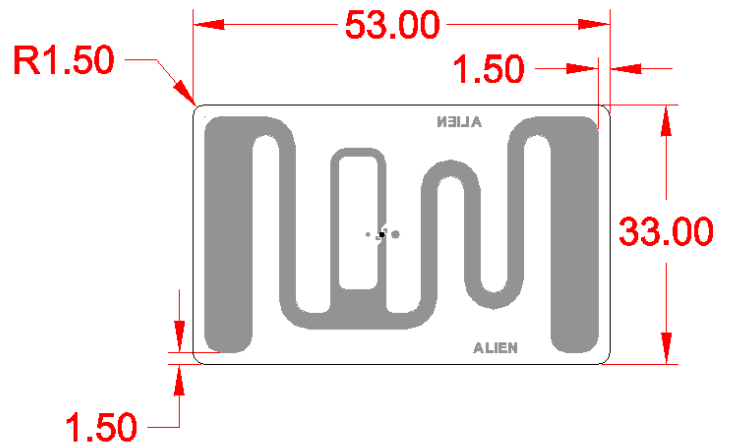
ALN-9728-35 "GT" Garment Tag Inlay (Re-Pitched)

All dimensions in millimeters unless specified otherwise

ALN-9728-35 Basic Dimensions

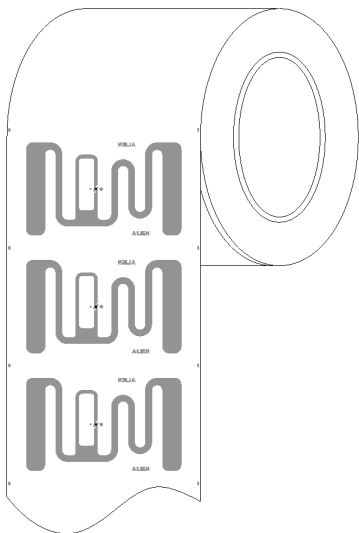


ALN-9728-35 Dry

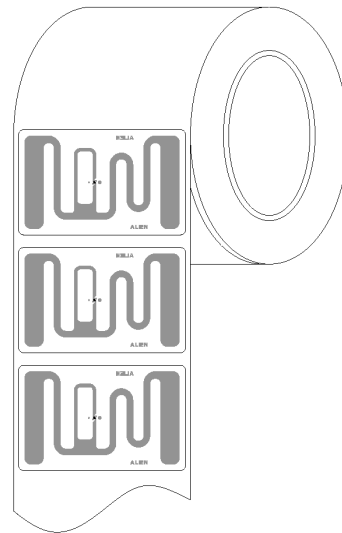


ALN-9728-35 Wet

ALN-9728-35 Inlay Orientation



ALN-9728-35R (Dry Unslit Roll) and
ALN-9728-35SR (Narrow Dry Unslit
Roll)

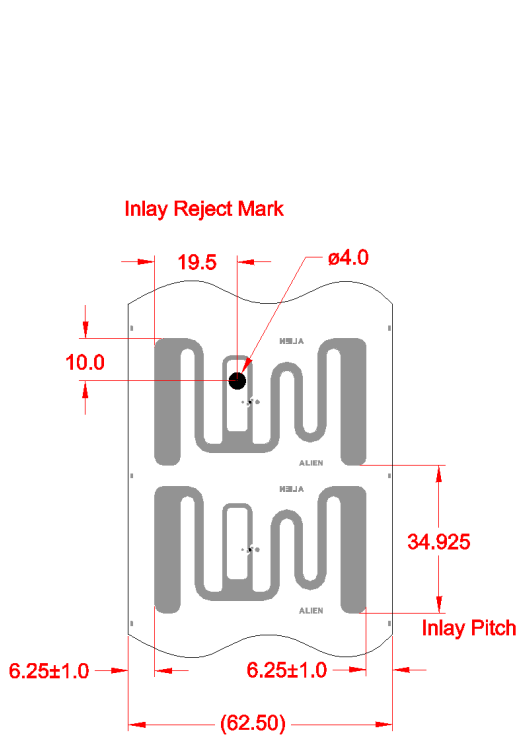


ALN-9728-35WRW
(White Wet Roll)

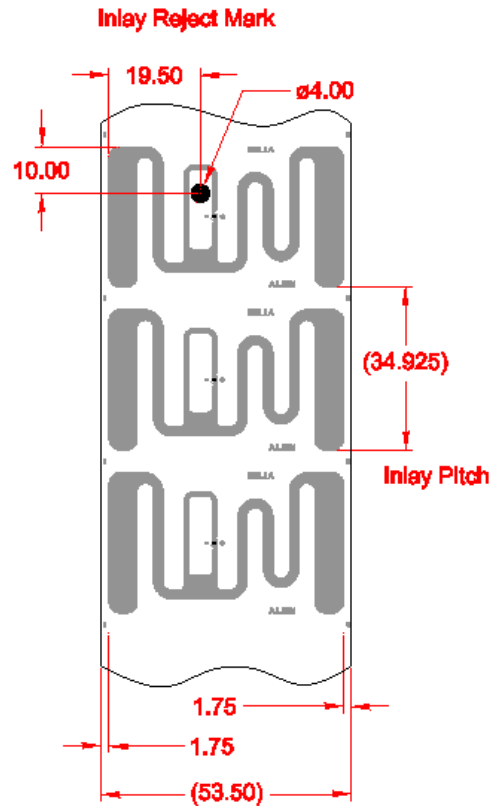
Standard Alien Inlay rolls unwind with metal antenna side facing outward, with respect to the core.



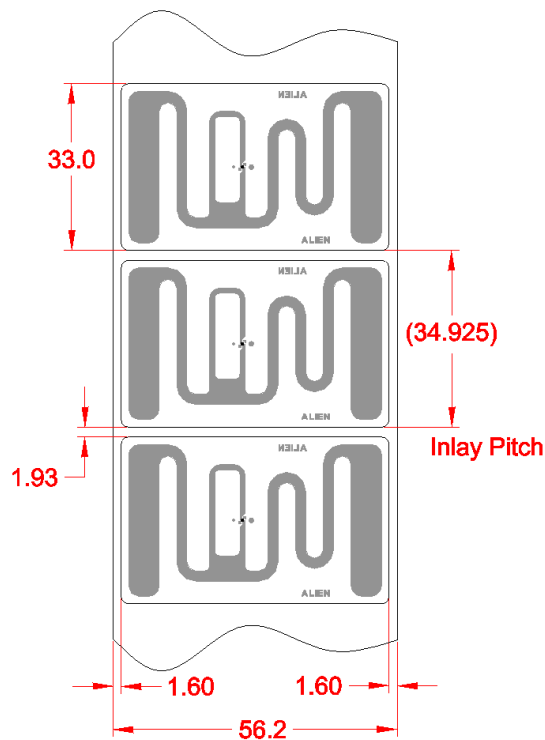
ALN-9728-35 Inlay Specification



ALN-9728-35R (Dry Unslit Roll)



ALN-9728-35SR (Dry Slit Roll)



ALN-9728-35WRW
(White Wet Roll)



ALN-9728-35 "GT" Garment Tag Inlay (Re-Pitched)

ALN-9728-35 Inlay Stackup

| DRY INLAY THICKNESS, $\pm 10\%$ | |
|---------------------------------|---------|
| OVER ANTENNA | 0.05 mm |
| OVER CHIP | 0.25 mm |

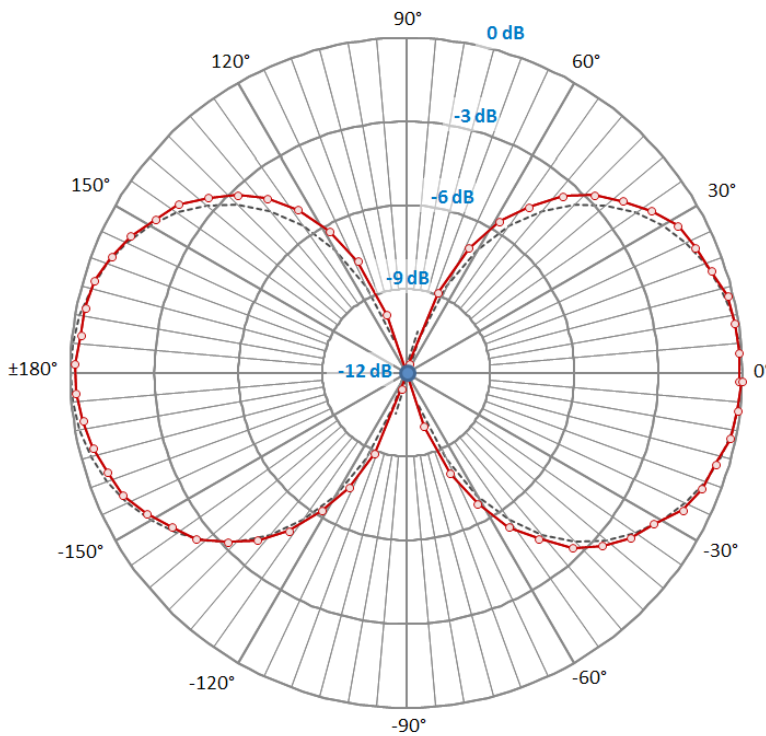
| WHITE WET INLAY THICKNESS, $\pm 10\%$ | |
|---------------------------------------|---------|
| OVER ANTENNA | 0.16 mm |
| OVER CHIP | 0.36 mm |



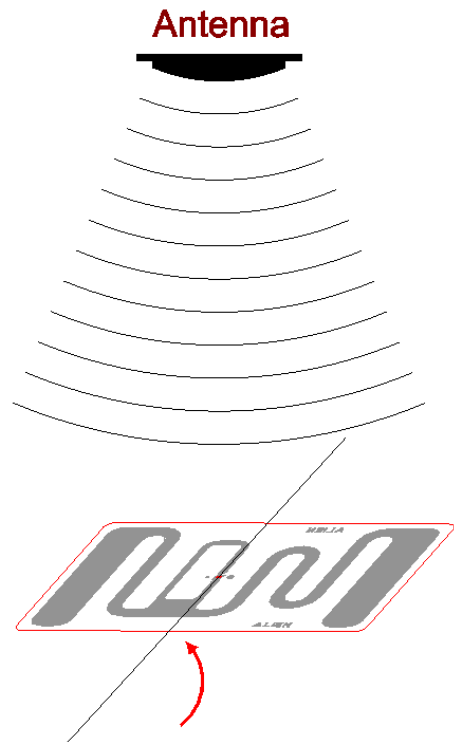
ALN-9728-35R (Dry Unslit Roll) and ALN-9728-35SR (Narrow Dry Unslit Roll)

ALN-9728-35WRW (White Wet Roll)

ALN-9728-35 Inlay Angular Sensitivity



Angular Sensitivity
(Relative Read Range vs. Orientation)



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



ALIEN ALN-9728-35 "GT" Garment Tag Inlay (Re-Pitched)

ALN-9728-35 Specifications

| Dry Inlay | Non-Rotated ALN-9728-35R | Non-Rotated Narrow ALN-9728-35SR | Environmental |
|--------------------|--------------------------|----------------------------------|----------------------|
| Antenna Width | 1.97" [50mm] | 1.97" [50mm] | Shelf Life |
| Antenna Length | 1.18" [30mm] | 1.18" [30mm] | |
| Web Width | 2.46" [62.5mm] | 2.11" [53.5mm] | Recommended Storage |
| Web Pitch | 1.375" [34.92mm] | 1.375" [34.92mm] | |
| Core Width | 2.46" [62.5mm] | 2.11" [53.5mm] | Storage Limits |
| Core ID | 6" [152.4mm]* | | |
| Core Material | Fiberboard | | Operating Limits |
| Inlays per Roll | 12,500 Nominal | 14,000 Nominal | |
| Maximum Roll OD | < 12" [304.8mm] | | Bend Diameter |
| Roll Labeling Data | Roll #, Quantity | | |
| | | | Pressure |
| | | | Drop Resistance |
| | | | Write Cycles |
| | | | RoHs |
| | | | REACH |
| | | | ESD Limit- HBM / CDM |

| Wet Inlay | Non-Rotated ALN-9728-35WRW | RFID |
|----------------------------------|------------------------------------|---------------------|
| Inlay Width | 2.09" [53.0mm] | Protocols Supported |
| Inlay Length | 1.30" [33.0mm] | |
| Web Width | 2.21" [56.2mm] | Integrated Circuit |
| Web Pitch | 1.375" [34.92mm] | |
| Core Width | 2.21" [56.2mm] | Operating Frequency |
| Core ID | 6" [152.4mm]* | |
| Core Material | Fiberboard | EPC Size |
| Inlays per Roll | 12,500 Nominal | |
| Maximum Roll OD | < 16" [406.4mm] | User Memory |
| Roll Labeling Data | Roll #, Quantity | |
| White | TT Printable White Film Only | TID |
| Overlay Adhesive | General Purpose Permanent | |
| Inlay Adhesive | General Purpose Permanent | Unique TID |
| Adhesive Application Temperature | > +25°F [-4°C] | |
| Adhesive Service Temperature | -40°F to +200°F [-40°C to +93.3°C] | Access Password |
| Release Liner | 40# SCK | |
| | | Kill Password |
| | | |

* Shipped with 6" to 3" plastic core adapter

July 5, 2015

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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, 7522055, 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, 6780696, 6731353, 6693384, 6683663, 6665044, 6657289, 6623574, 6606247, 6606079, 6590346, 6586338, 6586344, 6555408, 6527964, 6479395, 6468638, 6420266, 6316278, 6291896, 6281038. Other patents pending.

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