



SOLUTION BRIEF

RETAIL AND APPAREL

Apparel and Other Retailers Have Been Seeking to Optimize Their Supply Chains and Increase Show Floor Efficiencies. Only with the Advent of RFID has their Finally Been a Technology that is a Fundamental Enabler of These Goals. Alien's Advanced IC, Tag and Reader Performance is Playing a Significant Roll for Many Retailers Around the Globe in Achieving These Desires.

The Problem...

Apparel and other retailers have been struggling to optimize their systems to:

- Improve inventory accuracy and time to complete inventory
- Reduce shrinkage (internal and external)
- Reduce "out-of-stocks"
- Minimize sales loss due to incorrect merchandise on the sales-floor
- Optimizing garment size selection on the sales-floor
- Speed up correct garment and size re-ordering
- Brand protection
- Optimize promotional items
- Optimize product placement
- General efficiency cost savings



How Does Alien Technology Solves the Problem?

Alien Technology Class 1 Gen 2 UHF tags are optimized for use in retail, warehouse and supply chain applications. What is it about Alien Technology that addresses the problems above?

Alien Technology	Description	Benefit
IC and Tag Read and Write Sensitivity	Best industry cost performance combination. Higgs™4 IC provides industry top-tier read and write sensitivity at a cost point few can match.	Enables high accuracy and fast inventory at a cost point appealing to the retail customer.
Purpose Designed RFID Inlays in a Variety of Form-Factors	Enables retailers to tag a large variety of merchandise in a variety of environmental conditions.	Enables optimal tracking of objects through the complete supply chain and on the retail show floor.
Unique Non-Chipset based Fixed Reader Platform	ALR-9900+ is a "discrete" design using Alien intellectual property not shared with any other reader on the market.	Highest tier of performance, robustness and fast data read-rates.
Autonomous Reader Operation	Alien Readers can process more locally and burden the network and compute infrastructure around them less.	Meaningful data from the show floor can be quickly and inexpensively processed allowing optimal product placement and promotional item use.
Dynamic Authentication™	An anti-cloning and anti-counterfeit technology. An example of how the unique knowledge of both chip and reader can produce unique IP and value.	Brand protection. Reduced shrinkage.
BlastWrite™ and QuickWrite™	Technology for writing to large memory blocks to multiple tags simultaneously	Low tag setup cost for retailers.

What is the Financial Benefit of the Technology?



- Inventory accuracy improved from 68% to 95% at one US department store
- Another saw a 17% accuracy improvement
- A major clothing retailer saw 99% inventory accuracy and most importantly a 14% sales increase
- Others experienced a 96% reduction in time to perform inventory counts
- Shrinkage reduction of 30-50% common (US average is 1.5%). Includes:
 - Promotional items that don't get to the floor
 - Misplaced items that are undetected in cycle counts and thus miss 1 or more markdown cycles and sold off too cheaply when finally found
- Prior to their RFID implementation, one retailer was missing 20-30 percent of the product SKUs from the show floor
- A European luxury goods retailer saw "a noticeable drop in the gray-market diversion of its goods"
- Reduces out of stocks
- Improves inventory utilization and the identification of inventory misplacement, theft, and over-stocks
- Improves ability to identify slow and fast moving items
- Improves mark down and promotion capability
- ROI's in 6-12 months are common

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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.

IC products are covered by one or more of the following U.S. patents: 7967204, 7931063, 7868766, 7737825, 7716208, 7716160, 7688206, 7671720, 7659822, 7619531, 7615479, 7598867, 7580378, 7576656, 7562083, 7561221, 7559486, 7559131, 7554451, 7551141, 7542301, 7542008, 7522055, 7500610, 7489248, 7453705, 7452748, 7425467, 7417306, 7411503, 7385284, 7377445, 7364084, 7353598, 7342490, 7324061, 7321159, 7301458, 7295114, 7288432, 7265675, 7262686, 7193504, 7173528, 7172910, 7172789, 7141176, 7113250, 7080444, 7070851, 7068224, 7046328, 6998644, 6988667, 6985361, 6980184, 6970219, 6952157, 6942155, 6933848. Other patents pending.

Tag products are 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, 6623579, 6606247, 6606079, 6590346, 6586338, 6566744, 6555408, 6527964, 6479395, 6468638, 6420266, 6316278, 6291896, 6281038. Other patents pending.

Reader products are covered by one or more of the following U.S. patents: 7716208, 7716160, 7688206, 7671720, 7659822, 7619531, 7615479, 7598867, 7580378, 7576656, 7562083, 7561221, 7559486, 7559131, 7554451, 7411503, 7385284, 7377445, 7364084, 7353598, 7342490, 7324061, 7321159, 7301458, 7295114, 7288432, 7265675, 7262686, 7215249, 7214569, 7199527, 7193504, 7173528, 7172910, 7172789, 7141176, 7113250, 7101502, 7080444, 7070851, 7068224, 7046328, 6998644, 6988667, 6985361, 6980184, 6970219, 6952157. Other patents pending.



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