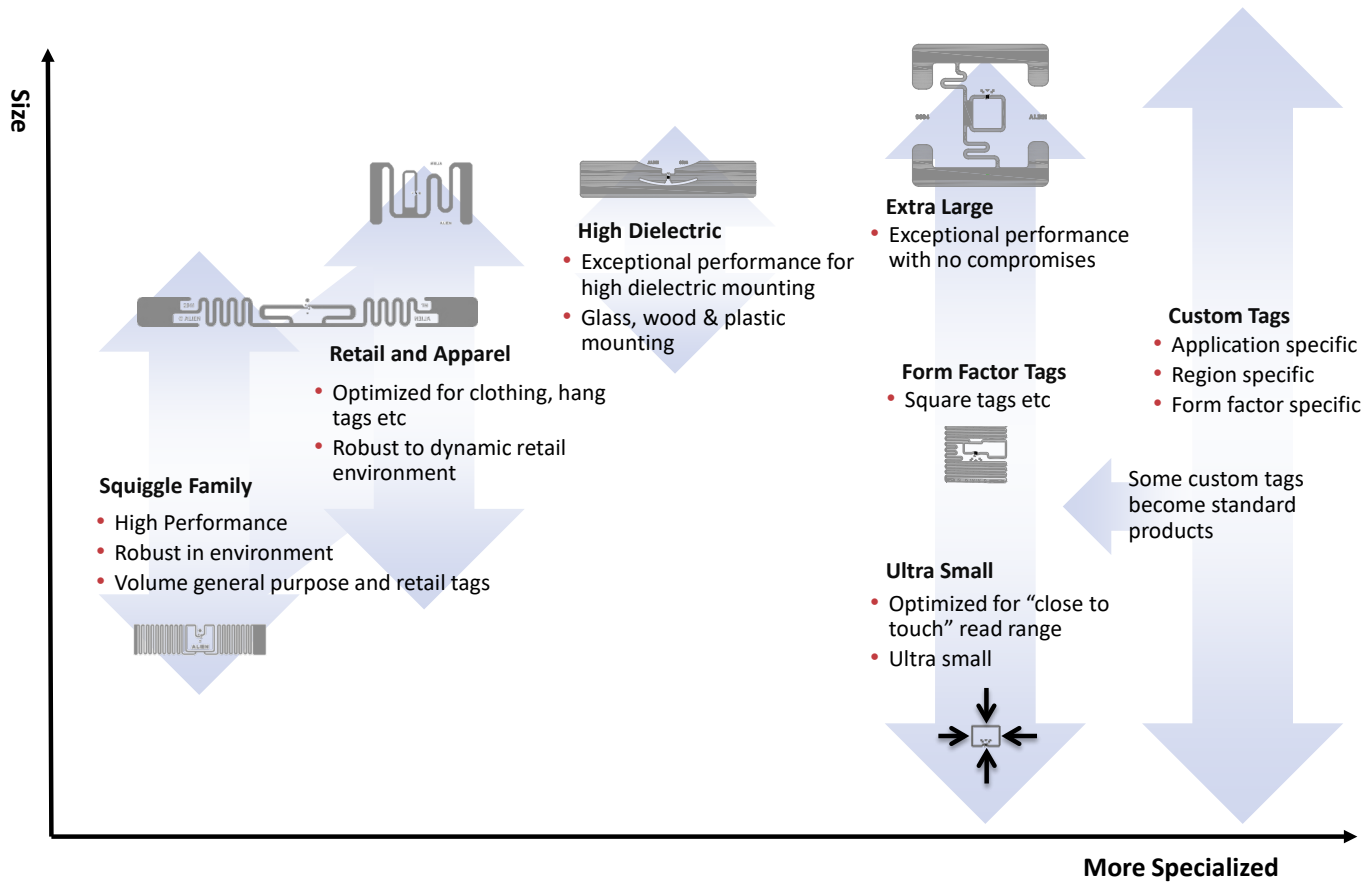




ALIEN FAMILY OF EPC GEN 2 RFID INLAYS

Alien Technology® manufactures a range of EPC Gen 2 inlays designed to deliver optimal performance in a variety of applications.

Powered either by the larger memory **Higgs™-3 UHF RFID IC**, the volume focused **Higgs™-4** or the new **Higgs™-EC** with increased range, reliability and robustness, Alien® offers a range of RFID inlays that fit a wide variety of sizes, applications, characteristics and needs.

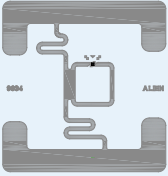





All Alien inlays are World Tag compliant, enabling operation across the diverse frequencies of the Americas, Europe, Middle East, Asia, and Africa. Some tags are world tags with specially tuned performance for optimal behavior in certain regions. See the tag matrix on the following pages. Please refer to Alien’s Higgs-3, Higgs-4 and Higgs-EC product overviews for details on the RFID IC capabilities.

Alien has the capability to design custom tags for appropriate volume applications (under appropriate business terms) and can offer reference designs under license.



Inlays: Form-factor/Orientation Family

Product	Higgs-3	Higgs-4	Higgs-EC	Antenna Size ¹	Application
2x2 	ALN-9634	N/A	N/A	1.73" x 1.81" 44mm x 46mm	Large items, baggage tagging, apparel and pharmaceutical bottles.
Square (1x1) 	ALN-9629	N/A	N/A	0.89" x 0.89" 22.5mm x 22.5mm	Item level tagging, apparel, pharmaceutical bottles and other high value consumables.
SIT (SIT) 	ALN-9613	ALN-9713	N/A	0.472" x 0.354" 12mm x 9mm	Jewelry, pharma, bottles, liquids, foods, DVD's, access control, loyalty cards, and other anti-counterfeiting applications.
Slimline™ (SL) 	N/A	ALN-9745	N/A	3.701" x 0.228"*** 94mm x 5.8mm** ***3.701" x 0.12" / 94mm x 3.05mm without inlay chip targets (not electrically significant - used for chip mounting only).	Book spines, door edges, cigarette boxes, small package labels, narrow form factor assets.

Product	Features	Benefits
2x2	Highest performance in a 2" form factor.	A square form-factor for tracking of larger items. Multiple-frequency sensitivity optimized for high performance in all world regions.
Square (1x1)	High performance when a longer tag form-factor is inappropriate.	The Square provides performance close to the 2x2 in a smaller form-factor.
SIT (SIT)	Ultra Compact. Near field access only. Can be used adjacent to metallic objects.	Fits very small objects normally challenging for RFID. Close proximity read zone for added security. Extended read range enabled through appropriate placement to conductive surfaces.
Slimline™ (SL)	Ultra slim form-factor at 5.8mm or 3.05mm thin (3.05mm without inlay targets).	Extremely narrow form-factor enabling use where RFID is normally not possible. Approaches the well regarded Squiggle/Squiglette performance in an ultra narrow form-factor.

¹ Sizes are approximate. **These are inlay antenna sizes.** Tags and labels will be larger. Please refer to specific product details available on Alien's website for exact measurements - www.alientechnology.com



Inlay Application Guide:

This table is a guide to assist narrowing the inlay types that may be relevant in your application. Tags should always be tested in their application but this table should help narrow that initial selection.

	Squiggle Family					Specialized Retail					High-Dielectric / Automotive				Form-factor			
	Squiggle® (SQ)	Short (SH)	Squiglette (ST)	Squig (SG)	Doc Tag (DT)	Glint (GL)	Pearl (PE)	HiScan (HS)	GT-Tag (GT)	Spider-360 (SP)	BAT-Tag (BAT)	Wonder-Dog (WD)	G-Tag (G)	Bio-Tag (BIO)	SlimLine (SL)	2x2 (2x2)	Square (1x1)	ST (ST)
Higgs™-EC Model #	ALN-9840	N/A	ALN-9830	N/A	N/A	N/A	N/A	ALN-9820	ALN-9828	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Higgs™-4 Model #	ALN-9740	ALN-9762	ALN-9730 ALN-9730-E	ALN-9710	ALN-9741	ALN-9715	ALN-9716	ALN-9720	ALN-9728	ALN-9726	ALN-9770	ALN-9768	N/A	ALN-9714	ALN-9745	N/A	N/A	ALN-9713
Higgs™-3 Model #	ALN-9640	ALN-9662	ALN-9630	ALN-9610	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ALN-9654	N/A	N/A	ALN-9634	ALN-9629	ALN-9613	
Retail																		
Mobile Asset Tracking*																		
Automotive																		
Pharma / Healthcare																		
Ultra compact																		
Wood/ Plastic/ Glass																		
Files/ Paper																		
General Purpose																		
Ref Design Available?	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes



* Includes Consumer Electronic Devices (TV's, STB's etc)

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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, 7342400, 7324061, 7321159, 7301458, 7295114, 7288432, 7266675, 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.

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