SAM'S CLUB MX RFID PLAYBOOK

For Sam's Club MX Stores

Revised December 09, 2024

The requirements in this version supersede all previous playbooks.

General Overview

What Industry Standards to Follow?

Sam's Club MX is following all industry standards set forth by the GS1 EPC Tag Data Standard, GS1 RFID tag placement standard, and Auburn University RFID Lab ARC inlay standard. All tagging requirements must meet these standards prior to arriving in our stores.

In-Scope for RFID tags:

All items within the Sams Club MX Departments are required to have RFID tags, unless listed in the Out-of-Scope section of this playbook.

Sam's Club MX

21 - Domestic	33 – Women's Apparel	67 - Accessories
22 - Basic Apparel	34 – Children's Apparel	78 - Mattresses
23 - Men's Apparel	66 - Shoes	92 – Automotive Batteries

Out-of-Scope for RFID tags:

- 3P Marketplace items
- Ecommerce only brands (i.e., brands not carried in stores)
    - **Note**: If the brand is carried in stores, all items under that brand must be RFID tagged except for 3P Marketplace items.
- "Championship" team sports merchandise (e.g., Superbowl, World Series, NCAA Championship, etc.)
- Items where RFID tags are not compatible with the product, as identified through the Auburn University RFID Lab.
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Getting Started

The following outlines a standard framework to integrate RFID into packaging. This includes major points and areas that should be considered; However, every company must tailor these steps to fit the needs of their business and supply chains.

- Identify the ways that RFID can help improve your operations. Refer to the "RFID Use Cases for Suppliers" section for details
- Develop an internal team
- Engage with your packaging provider and if needed you will also need to engage with an approved RFID Inlay Manufacturer
- Begin procurement discussions and provide forecasts to your packaging and RFID Inlay provider
- Begin data management and serialization discussions with your RFID packaging provider. Refer to the "RFID Encoding & Serialization Requirements" section for details
- Develop quality check process to ensure all items are tagged according to all requirements in this Playbook

Select RFID Inlay Spec

Sam's Club MX has a set of ARC inlay specifications that are performance approved from the Auburn University RFID Lab. The Auburn University ARC standard ensures RFID tags meet or exceed the levels of performance and quality necessary to provide benefit in a consistent and cost-effective manner.

All in-scope items are required to transition to the updated inlay specs as outlined in the table below. Any on-going item tagged with a previously approved inlay spec will need to transition to the updated specs below no later than **October 1, 2025**, MABD (must arrive by date). New items should utilize the updated specs immediately. If you are updating an inlay, please update your existing submissions at: https://rfidlab.org/submissionupdate/

Sam's Club MX

Department	Subcategory	Inlay Spec	Approved Inlay List
D21 – Domestic	All	Y2	https://rfidlab.org/arc/spec-y2.php
D22 – Basic	Apparel	R	https://rfidlab.org/arc/spec-r.php
D23 – Men's	Apparel	R	https://rfidlab.org/arc/spec-r.php
D33 – Ladies	Apparel	R	https://rfidlab.org/arc/spec-r.php
D34 – Children's	Apparel	R	https://rfidlab.org/arc/spec-r.php
D66 – Shoes	All	R	https://rfidlab.org/arc/spec-r.php
D67 – Accessories	All	R	https://rfidlab.org/arc/spec-r.php
D78 - Mattresses	All	Y2	https://rfidlab.org/arc/spec-y2.php
D92 – Automotive Batteries	All	P	https://rfidlab.org/arc/spec-p.php

Determine Inlay Manufacturer

Suppliers may only select from the approved list provided on the Auburn University RFID Lab's Website from the appropriate Spec. Any inlay manufacturer not listed on the appropriate Spec cannot produce inlays for packaging being shipped to Sam's Club MX. Even if using an approved inlay provider, you must still submit the final production samples to the Auburn University RFID Lab for approval.

The latest version of the ARC approved RFID inlay manufacturer and contact information is available at https://rfidlab.org/inlaycontacts/

Determine Packaging Resource, RFID Encoder/Service Bureau

Brand owners can utilize their own RFID packaging resource to develop and print their RFID inlays but must adhere to the GS1 standards and ARC standards and obtain approvals from Auburn.

A list of RFID packaging resources is available at https://rfidpackagingresources.org/. These are packaging providers that have supplied packaging for other RFID Programs. This is NOT an endorsement or list of nominated suppliers.

Suppliers can also utilize other RFID packaging providers that are not listed. All label providers or packaging resources will need to source an Auburn university ARC approved RFID inlay.

Identify Inlay Size

Use the largest RFID inlay size available that fits your packaging.

If your packaging does not fit the smallest inlay size available within the approved spec, add a generic embedded inlay hangtag or a separate paper-based sticker to your item.

Determine Placement of RFID tag

The guidelines below are general in nature. Please consult the GS1 Apparel Placement Guideline for product specific placement and adhere to GS1 standards. The link can be found below or at the end of the document:https://documents.gs1us.org/adobe/assets/deliver/urn:aaid:aem:60eac8d3-1224-42e0-a109-c89e7fff3570/implementation-guideline-format-symbol-placement.pdf

For domestics, or items with additional packaging types, please consult the Auburn tagging guideline: https://rfidlab.org/tagging-location-guide

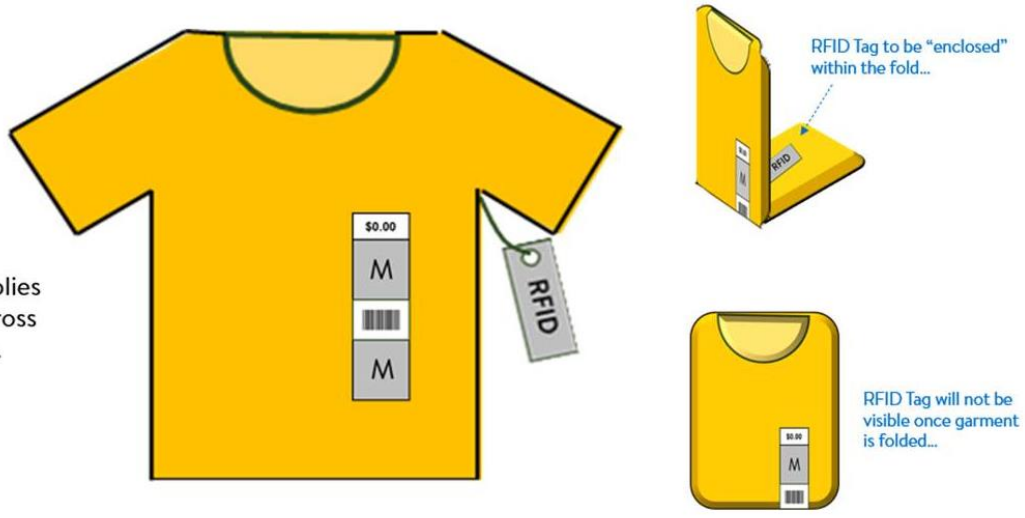
EXISTING PRODUCT/PACKAGING TYPE	RFID APPLICATION
Backer Card	Add a separate paper-based sticker
Bellyband	Add a separate paper-based sticker
Blisters/Clamshells	Add a separate paper-based sticker
Collar Card	Add a Branded embedded inlay hangtag
Folding Carton	Add a separate paper-based sticker
Graphic Tee	Add a secondary RFID hang tag under the wearer's left armhole
Hardware/Parts	Place sticker as far away from metal as possible within the packaging
Header Card	Add a separate paper-based sticker
Jewelry - Fine	- No metal foils, metal containers, holograms or metallic inks should be used on the packaging. If so, you must receive Auburn approval prior to bulk production of the packaging - RFID sticker to be placed on bottom of fine jewelry box - Out of box chains will use a rattail label
Jewelry – Fashion & Bridge	- No metal foils, metal containers, holograms or metallic inks should be used on the packaging. If so, you must receive Auburn approval prior to bulk production of the packaging - RFID sticker to be placed in the back of carding, as far away from metal as possible
Jewelry - Care	- RFID Sticker cannot be placed on bottom; place on backside or side of packaging. - For items containing liquid or metal, Contact Auburn

Jewelry Carding/Box	Add a separate paper-based sticker/Contact Auburn for further direction
Joker Ticket/Sunglasses	Add a separate paper-based sticker or embed inlay into joker
Metal Can	Contact Auburn: https://rfidlab.org/aleccontactform/
Plastic Bottle	Add a separate paper-based sticker
Polybag	Add a separate Generic RFID embedded hangtag into the polybag
Primary Branded Hangtag	Embed inlay into hangtag
Size Strip	Add a joker ticket or embed inlay into primary hangtag; RFID cannot be placed within the size strip.
Wallet/Belt/Watch	Add a separate paper-based sticker or attach hangtag directly to item
Watches - Cuff Stands	- Watches displayed in a watch cuff only, requires a special inlay - If the base is thicker than xxx mm the RFID sticker should be placed in the top of the base otherwise a hangtag should be attached directly to the item.
Watches - Boxes	- RFID Sticker cannot be placed on the bottom; side of box is preferred. - No metal foils, metal containers, holograms or metallic inks should be used on the packaging. If so, you must receive Auburn approval prior to bulk production of the packaging
Watches - Batteries	Packaging may need to be redesigned to accommodate RFID inlay, Contact Auburn

RFID Tag Location | Folded Tops (new direction)

Changing tag location to the seam under left armhole of folded tops (previous direction was to tag at neck);
New location reduces risk of RFID tags contacting metal fixtures in stores – e.g., spinner racks, shelves, etc.

New tag location applies to all folded tops across all Fashion Depts.



Review RFID Application Formats

Please contact Sams_MX_RFID@wal-mart.com for any questions.

Embedded Hangtag

- Any changes to die lines or artwork will be managed through Sam's Club Packaging Team
- Inlays must be embedded into branded hangtag.
- 4 mm gutter or greater around the embedded inlay
- All branded tags must have inlay embedded by Q4 2024

Folded Programs Only with Size Strip

- Swiftach embedded inlay hangtag through the inside left armhole seam. Swiftach length is ½ inch and the embedded hangtag will need to be tucked inside the shirt or pant. **This is an exception from the GS1 placement guidelines, for folded programs only**
- If the item contains a joker ticket, embed inlay into joker

Generic Embedded Hangtag Format

Generic embedded hangtags should only be used when size strip or hanger collar card is the core branded packaging, or if the inlay sizes available do not fit your current packaging. It must be placed behind the primary hangtag.

Hangtag dimensions: 83mm x 25mm

Specifications:

- Embed inlay between C2S paper stock
- Material: ~14pt. C2S (minimum; glossy both sides)
- Font: 12pt. Bogle Regular (centered vertically & horizontally from left side of logo to right side of swift tack hole)
- EPC logo: Centered vertically and placed as shown
- Prints: Black ink on one side of tag
- 4 mm gutter or greater around the embedded inlay

Minimum Copy Requirements:

- UPC # (no bars; human readable)
- EPC Logo
- Item Description (picked up from other primary packaging)
- Additional information is allowed

Adhesive Label – Sticker with or without Barcode

- Separate, paper-based stickers can be used to apply RFID tags, according to the tagging guideline above
- Examples:

FRONT

BACK

FRONT

BACK

Hanging Programs - Long Sleeve (all brands)

- Armhole placement is allowed

D66 Shoe Hangtags (all brands)

- RFID hangtag must be affixed to shoe (Only ONE RFID tag per pair of shoes)
- Embed inlay into branded hangtag
- RFID stickers cannot be used or attached anywhere on the shoe box
- EPC Logo must still be printed on outside of shoe box

Private Brands Only

Tag options for plastic packaging are:

- If the packaging contains both paper and plastic, suppliers must place the RFID tag on the paper instead of plastic
- If plastic is the only packaging for the product, suppliers must choose one of the following options:
    - Place the RFID tag loosely inside the packaging. Ensure that the tag won't reach the bottom of the package during transportation/handling and touch the metal shelves
    - A hangtag attached to the packaging or product

Tagging Requirements

- Please make sure that that there is only ONE RFID tag per product
- RFID tags should not be sewn into the physical item
- RFID inlay stickers should be placed on packaging only
- RFID tags or inlays cannot cover any text or images
- If an item is being stickered, the domicile with the country of origin should not be covered up - it needs to be visible to the customer. The supplier can print the country of origin on the RFID sticker if needed
- No staples, perforations, swift tachs, folding or die cuts through the inlay as it will make the inlay unreadable

- No RFID inlay placement on bottom of polybags, bottom of boxed items, near under wire for bras, on glass, on liquids, on Silvadur, or near metal/foil
- RFID cannot be applied to an EAS tag
- No two (2) scannable UPC barcodes are allowed on the same item
- No metal foils, holograms or metallic inks should be used on any packaging containing the RFID inlay. If so, you MUST receive the RFID Lab approval prior to bulk production of the printed packaging

EPC Symbol

- The EPC logo example represents the bare minimum of information that should be shown on your packaging to identify RFID tagging
- The EPC logo should be externally visible. For example, all shoe boxes should contain the EPC logo on the outside.
- The EPC logo is an industry standard to inform the customer and store associate that the product contains RFID
- The EPC symbol should not be shown on any packaging that does not contain an RFID inlay
- See this link for the EPC Symbol image file and related documentation: https://www.gs1.org/standards/epc-rfid/guidelines
- Download the EPC symbol and usage guidelines directly here: https://www.gs1.org/sites/default/files/epc_symbol_usage_guidelines.zip

RFID Encoding & Serialization Requirements

- All tags are to be encoded appropriately per EPC Tag Data Standards (TDS), resulting in unique serialization for each item. The SGTIN-96 tag encoding standard maintained by GS1 is to be used

- Please keep in mind that each serial number must be unique to that item and can run a risk of having duplicate numbers if not managed properly throughout the development process. Please ensure unique serialization is managed when using multiple packaging providers for the same SKU. See the link for more information: https://documents.gs1us.org/adobe/assets/deliver/urn:aaid:aem:5f88064e-0dbb-495b-9f29-a9ce3758caed/Developing-an-RFID-Serialization-Plan.pdf
- Tags must be permalocked to prevent tampering
- All tags must undergo quality and data integrity checks prior to entering the Sam's Club MX supply chain
- The EPC Encoder/Decoder Tool may be found here: https://www.gs1.org/services/epc-encoderdecoder

ALEC - Approval of Production RFID Packaging Samples

Auburn University RFID Lab's ALEC program is to help Suppliers ensure that their RFID tagged item meets all the industry requirements.

Refer to the ALEC submission guide at https://rfidlab.org/wp-content/uploads/General-Form-Submission-Guide.pdf for detailed instruction before starting this process.

If you have already received an approval, please use this link to apply to the approval to Sam's Club Mexico.

Before any shipment of goods can begin, you must receive RFID lab Approval.

Send Five (5) EPC tag samples of the same item only (no product or packaging) to the RFID Lab for ALEC validation prior to bulk production. These may be branded hangtags, generic hangtags, or stickers.

- Submit one UPC per Submission Form
- You will need approval on a representative UPC (SKU) for each clothing type, for:
  - Every brand
  - Every packaging type used
  - Every packaging provider used
  - Every RFID inlay model
  - Every Tagging location
- You do not need to submit every individual SKU separately. Only submit where differences occur from the list above.
- Send five inlay samples of the one representative UPC.
- The RFID Tags MUST be production quality
- Within the submission form, you will be asked to add a list of all items that follow the same criteria as the representative SKU
- Please complete and submit the online submission form at https://rfidlab.org/alecsubmissionform/. Print the PDF confirmation and include it along with the samples
- Testing will not begin until the printed confirmation form has arrived at the lab
- Actual product or packaging will only need to be sent when specifically requested by the RFID Lab.
  - **Note**: Any product sent to the RFID Lab will **NOT** be returned to the product supplier
- **Watches, Fine Jewelry, Costume Jewelry and Shoe & Jewelry Care suppliers MUST send actual product packaging along with RFID tags attached to item**
- Product Suppliers are responsible for submitting their own samples to the RFID Lab. Packaging resources CANNOT submit samples on behalf of the Product Suppliers to the RFID Lab
- Product Suppliers who decide to switch RFID inlay models and/or inlay providers and/or Service Bureau and/or packaging providers and/or tagging location AFTER receiving the initial validation from the RFID Lab, will need to re-submit tag samples again for validation using the following form: https://rfidlab.org/alec-submissionform/ This applies to all suppliers, packaging providers, and National/Private brands. No Exceptions.
- Product Suppliers who decide to change/add new packaging with materials that may interfere with readability, such as metal, foil, or liquid, will need to re-submit tag samples again for validation using the following form: https://rfidlab.org/alec-submissionform/
- Once you receive an email approval from the RFID Lab, you are approved to move into bulk ordering and production

Supplier Accountability

- The RFID solution (RFID Inlay Model, RFID packaging provider, tagging location) for all products shipped to Walmart must have a valid ALEC approval ID.
- Product suppliers are required to have a process in place to ensure all items that are delivered to Sam's Club MX have an ARC approved RFID tag
- Quality checking includes ensuring there are no duplicate serial numbers and that each tag is properly encoded with the correct GTIN for the item it is on
- Product suppliers will be responsible for all costs incurred for any RFID errors at store level

RFID Use Cases for Suppliers

Please refer to the following research paper published by Auburn University for potential uses of RFID in your operations and supply chain.

https://rfid.auburn.edu/wp-content/uploads/2021/02/Empirical_Study_of_RFID_in_Supply_Chain.pdf

https://rfid.auburn.edu/wp-content/uploads/2021/02/CHIP-Proof-of-Concept-Results-Auburn-RFID-Lab.pdf

RFID is being used by suppliers to automate inbound audit processes, improve Inventory accuracy, and outbound validation.

Contacts

Sam's Club MX Corporate

General questions: Sams_MX_RFID@wal-mart.com

Sam's Club MX Private Brand Packaging

Sams_MX_RFID@wal-mart.com

Auburn University RFID Lab

General Questions rfidlab.org/aleccontactform/
ALEC RFID tag samples validation submission form rfidlab.org/alecsubmissionform/
ARC Website https://rfidlab.org/arc/

GS1 U.S.

Website: https://www.gs1mexico.org/es/

Tagging Location Guide: https://documents.gs1us.org/adobe/assets/deliver/urn:aaid:aem:60eac8d3-1224-42e0-a109-c89e7fff3570/implementation-guideline-format-symbol-placement.pdf

Supplier-oriented introduction to RFID: https://site.gs1us.org/RFID-success.html

Serialization Guide: https://documents.gs1us.org/adobe/assets/deliver/urn:aaid:aem:5f88064e-0dbb-495b-9f29-a9ce3758caed/Developing-an-RFID-Serialization-Plan.pdf

Tag Data Standard: https://www.gs1.org/standards/tds