GS1 Australia

The Global Language of Business

Source to consumer

Using GS1 standards in retail

GS1 makes it possible for apparel and general merchandise companies to follow their products from the source to the consumer — ensuring that the right product is in the right place at the right time regardless of the channel or path to purchase.

Challenges facing the industry today

Improving inventory accuracy and supply chain visibility

In today's omni-channel retail world, consumers are in control. They expect accurate, immediate product information and access to products. They will move on if they can't find the products they want, when they want them. The General Merchandise and Apparel Industries are most concerned with improving inventory accuracy and supply chain visibility capabilities to satisfy consumer demands, while still addressing expectations around product and consumer safety.

Developing omni-channel fulfillment capabilities is another area of focus for brands, distributors and retailers looking to further streamline their business processes from sourcing products to getting them in the hands of consumers everywhere.

"The effect of RFID will be felt right through our supply chain, enabling us to automate our facilities up stream. The technology maximises the benefits of automation. It will allow us to consolidate and fulfil orders, from across channels and sources, serving the customer more efficiently. Ultimately this affects the authenticity of our brand."

Terry Murphy, Director National Distribution Centre, John Lewis

IDENTIFY CAPTURE SHARE

GS1 standards for identifying, capturing and sharing information — about products, business locations, and more — makes it possible for companies to speak the same language, connect with each other, and move their business forward, faster.

IDENTIFY

GS1 identification numbers

GS1 standards begin with GS1 identification numbers or keys used to uniquely distinguish all products (trade items), logistic units, locations, assets and relationships across the supply chain from manufacturer to consumer.

These numbers provide the link between the item and the information pertaining to it.

GS1 standards in retail

COMPANY

Global GS1 Company Prefix

GLN
Global Location Number

LOCATION

GLN
Global Location Number for identifying
- Physical locations
- Legal entities or
- Virtual locations

PRODUCT

GTIN®
Global Trade Item Number®

EPC®/SGTIN
Serialised Global Trade Item Number

LOGISTICS

SSCC
Serial Shipping Container Code

GSIN
Global Shipment Identification Number

ASSETS

GIAI
Global Individual Asset Identifier

GRAI
Global Returnable Asset Identifier

SERVICES AND OTHER

GSRN
Global Service Relation Number

GDTI
Global Document Type Identifier

CAPTURE

GS1 data carriers

GS1 data carriers are capable of holding varying amounts of data to accommodate different needs such as batch/lot information and expiration dates.

EPC/RFID tags and GS1 DataBar® barcodes are examples of barcodes scanned at retail point of sale. ITF-14 and GS1-128 barcodes are used to uniquely identify units of product at the case and pallet level to help manage fast and accurate tracking of inventory. The EPC (Electronic Product Code) encodes GS1 identification numbers like GTINs, GLNs, and SSCCs, and allows them to be carried on RFID tags.

The data encoded in GS1 data carriers uniquely identifies products (and units of product) and improves inventory accuracy.

ITEM

9 312345 678907

EAN-13

Carries a Global Trade Item Number (GTIN)

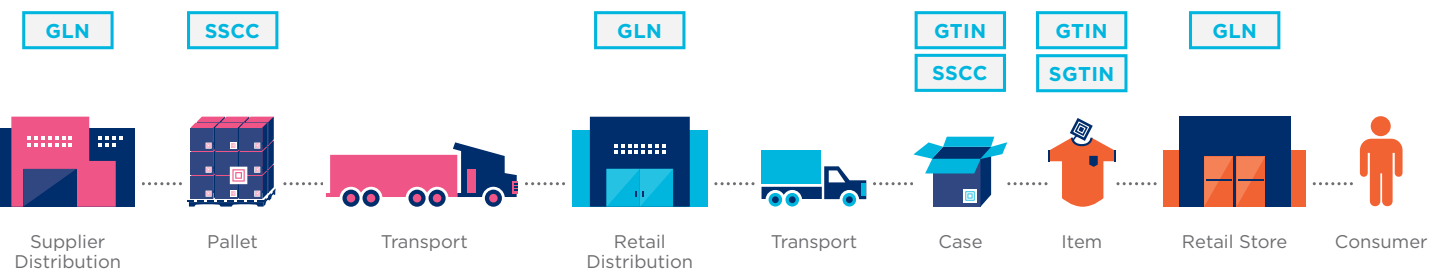
OR

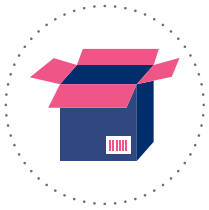
EPC-ENABLED RFID

Carries a Serialised GTIN (SGTIN)

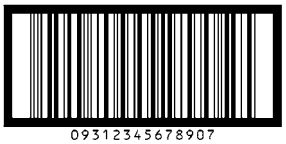
UHF RFID
Human readable SGTIN
093123456700000000

Radio Frequency Identification (RFID) tags are read quickly and easily without requiring line of sight and carry data that can be added to or modified as the tagged item moves.





CASE



ITF-14
Carries a GTIN

Used to uniquely identify bulk units such as cartons, cases, or pallets, and help manage fast and accurate tracking of inventory. This barcode only encodes a GTIN and is not intended to pass through retail point of sale.

OR

GS1-128

Carries a GTIN or a Serial Shipping Container Code (SSCC)

SSCC in a GS1-128 barcode enables quick and accurate receipt of product.

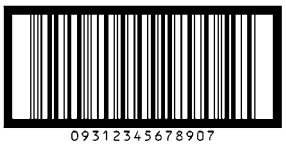
OR

EPC-ENABLED RFID

Carries an SGTIN or SSCC

UHF RFID
Human readable SGTIN
093123456700000000

PALLET



ITF-14
Carries a GTIN

OR

GS1-128

Carries a GTIN or an SSCC

OR

EPC-ENABLED RFID

Carries an SGTIN or an SSCC

UHF RFID
Human readable SSCC
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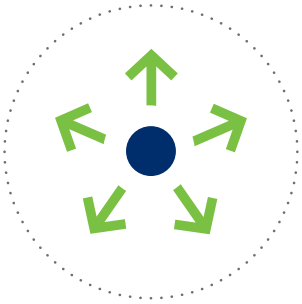


SHARE

GS1 data exchange

MASTER DATA	WHAT GOES INTO IT
GDSN	GTINs
Global Data Synchronisation Network	GLNs of Brand Owner
The GDSN connects trading partners to the GS1 Global Registry® via GS1 certified data pools, enabling the immediate electronic sharing of standardised, up-to-date, accurate information.	Product Descriptions
	Product Classification

TRANSACTIONAL DATA	WHAT GOES INTO IT
EDI	GTIN
Electronic Data Interchange	GLN
EDI enables the computer-to-computer exchange of business documents between companies using a standardised format.	SSCC
	EDI DOCUMENT TYPES
	Purchase Order
	Advance Ship Notice
	Invoice
	Payment
	Transport Instruction
	Sales Report

PHYSICAL EVENT DATA	WHAT GOES INTO IT
EPCIS	What SGTIN
Electronic Product Code Information Services	Where SGLN
EPCIS is the standard for sharing information about the movement and status of goods in the physical world.	When Date & Time Stamp
	Why Business Setup & Product Disposition

INTEROPERABILITY

PRODUCT DATA | REQUEST FOR QUOTATION | PRICE AND PROMOTION DATA | PURCHASE ORDER | PLANNING SCHEDULE | ADVANCE SHIP NOTICE | INVOICE | PRODUCT RECALL/ WITHDRAWAL

Across the supply chain, trading partners are connecting with each other and leveraging the power of information by using GS1 standards as the foundation of their business processes.

Source material supplier

IDENTIFY

- Company GLNs are assigned and managed for field, raw materials and processing plants
- GTINs are assigned to pre-production raw materials and items, SSCCs are assigned to cases

CAPTURE

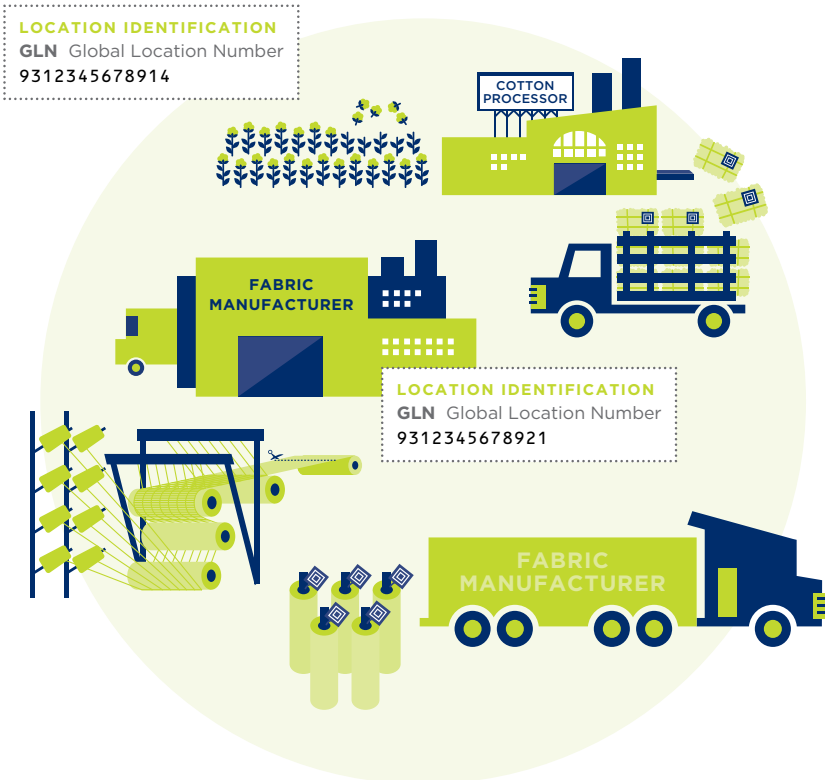
- Barcodes or EPCs are matched to the field to validate location
- Barcode or EPC technology is used to capture inventory of raw material

SHARE

- The GDSN is used to exchange product information
- EDI is used for transactional data
- EPCIS is used to exchange physical event data

BENEFITS

- Enables materials to be traced back to their point of origin
- Enables product to be traced to the manufacturing line



Manufacturer

IDENTIFY

- GTIN or SGTIN is assigned to the finished product
- GTIN or SSCC is assigned to the case

CAPTURE

- Barcodes or EPCs are used to capture inventory of finished products
- Barcodes or EPCs are used to validate pack-out quantities

SHARE

- The GDSN is used to exchange product information
- EDI is used for transactional data
- EPCIS is used to exchange physical event data

BENEFITS

- Decreases shipping and receiving costs
- Reduces errors and lowers labour costs
- Results in fewer deductions and chargebacks
- Decreases return costs
- Provides better information flow to trading partners
- Enables work in progress monitoring

Transportation, logistics and customs

CAPTURE

- Barcodes or EPCs are scanned to ensure accuracy of products in cases and pallets
- EPC physical events (arrival and departure scans) are captured

SHARE

- The GDSN is used to exchange product information
- EDI is used for transactional data
- EPCIS is used to exchange physical event data

BENEFITS

- Speeds up and improves customs clearance
- Results in labour and expense savings for both customs agencies and businesses
- Allows for easier identification and understanding of risks

Supplier distribution

IDENTIFY

- SSCC is assigned to case and pallet after pick and pack process

CAPTURE

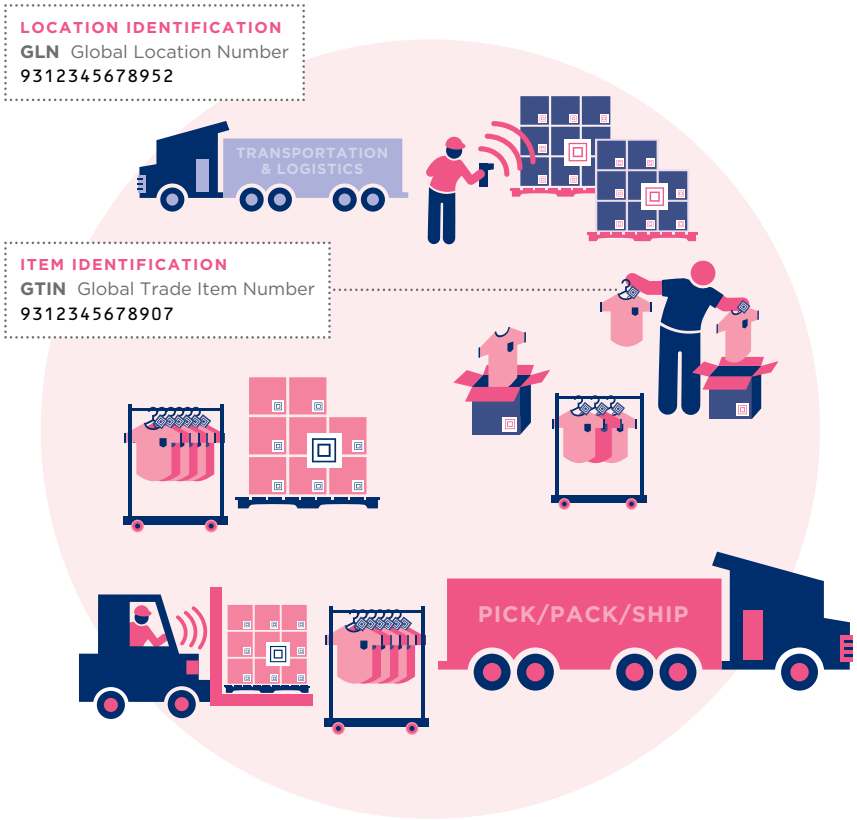
- Barcodes or EPCs are scanned to ensure accuracy of products in cases and pallets
- SSCC is encoded into GS1-128 or EPC on case and pallet

SHARE

- The GDSN is used to exchange product information
- EDI is used for transactional data such as ASN and is sent to retail distribution centre
- EPCIS is used to exchange physical event data

BENEFITS

- Tracks and validates shipping processes, reducing counterfeits and ensuring brand protection
- Provides accurate, automatic inventory counts
- Increases audit capability (visibility into case contents)
- Validates receipt of goods (electronic proof of delivery)
- EDI allows transport providers to be sent specific information in relation to shipments and SSCC data



Retail distribution

IDENTIFY

- SSCC is assigned to case and pallet after pick and pack process
- ITF-14 is used to support high speed sorting

CAPTURE

- Barcodes or EPCs are scanned to ensure accuracy of products in cases and pallets
- SSCC is encoded into GS1-128 or EPC on case and pallet

SHARE

- The GDSN is used to exchange product information
- EDI is used for transactional data such as ASN or payment information
- EPCIS is used to exchange physical event data

BENEFITS

- Improves inventory labour productivity by 96%
- Reduces cycle count time by 96%
- Lowers inventory risks and costs
- Enables electronic proof of delivery

Retail store

CAPTURE

- Barcodes or EPCs are scanned to ensure accuracy of products in cases and pallets
- Barcodes or EPCs are used to capture in-store stocktaking data
- EPC is scanned at point-of-sale (POS)
- EPC is scanned for Electronic Article Surveillance (EAS)

SHARE

- EDI is used for transactional data such as sales activity or inventory reporting
- EPCIS is used to exchange physical event data

BENEFITS

- Reduces time to locate products by 18%
- Raises inventory accuracy from 63% to 95%
- Cuts out of stocks by 50%
- Increases inventory count rates from 200 to over 12,000 items per hour

Now is the time to get involved!

Express your interest in joining the Australian Retail RFID Alliance Work Group.

The workgroups are made up of industry stakeholders, to develop standards-based guidelines, best practices, case studies, thought leadership, and alignment on future opportunities for unlocking further value from the use of GS1 standards.

- Item Level RFID
- Logistics

Express interest by emailing

genmerch@gs1au.org

Start implementing

Visit **www.gs1au.org/for-your-industry/general-merchandise/** to access:

- Information on relevant GS1 standards
- Workgroups
- Tools and resources
  - Implementation guidelines
  - White papers and Case studies
- Education and webinars
- Members, advocates, and partners

About GS1 Australia

GS1 Australia is the leading provider of standards and solutions for over 20 industry sectors. We introduced barcoding to Australia in 1979 and today we enable more than 17,000 member companies, of all sizes, to become more efficient by implementing the GS1 system.

We bring businesses, associations and industries together. This blended community comes to GS1 Australia for advice, networking and solutions to their supply chain challenges. We partner with, and help showcase, members, solution providers and industry leaders to demonstrate and encourage supply chain best practice.

We offer a range of value adding services that support our members through their journey including consulting, solution selection and compliance.

GS1 Australia makes a real and tangible difference to businesses. We are integral to your supply chain success.

GS1 Australia
Head Office, 8 Nexus Court, Mulgrave VIC 3170
Locked Bag 2, Mt Waverley VIC 3149
T 1300 227 263 | **F** +61 3 9558 9551 | **ABN** 67 005 529 920
www.gs1au.org

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9 312345 024483