



General Specifications Change Notification (GSCN)

WR #	GSCN Name	Ratification Date
21-256	GS1 identification licensee – update glossary term	May 2022

Associated Work Request (WR) Number:

Background:

Proposed glossary definition: Combine Glossary Term **GS1 identification licensee** and changes to impacted section provided.

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4.3.2.3 Trade item variants

4.3.2.3.1 Consumer product variants

Per brand owner discretion, a consumer product variant (CPV) if used, SHALL be used with GTIN on retail consumer trade items in the following conditions:

1. A CPV may be assigned by the brand owner to a variation of a retail consumer trade item, which SHALL NOT require a new GTIN per the [GTIN Management Standard](#), but where communication regarding the variation may be required.
2. Each retail consumer trade item variation SHALL NOT have more than one CPV value.
3. CPV may be assigned to retail consumer trade items that contain a homogeneous quantity or predefined assortment of retail consumer trade items.
4. When a retail consumer trade item is offered in different quantities (e.g., unit, six pack, 12 pack) the various packages for these quantities are each identified with a unique GTIN. Those packages may also each include a unique CPV and the actual data value for the CPV may or may not be the same between the various packages.
5. The CPV of a retail consumer trade item that contains a homogeneous quantity or predefined assortment of retail consumer trade items may change independently from the CPV of the contained retail consumer trade items, but shall change if the CPV of any of the contained retail consumer trade item changes.

4.3.2.3.2 Minor trade item variants for trade item groupings

For trade item groupings containing units that are themselves minor trade item variants of trade items whose GTINs remain unchanged, the rule is the following:

- If the identification of minor trade item variants is only relevant to the manufacturer, they SHOULD distinguish these variants by using the element string internal product variant, AI (20). Examples include an identical product made in two separate locations or the same product with a minor package design change.

4.3.3 Responsibility for allocating the Global Trade Item Number

4.3.3.1 Responsibility for branded items

The brand owner, the organisation that owns the specifications of the trade item regardless of where and by whom it is manufactured, is normally responsible for the allocation of the Global Trade Item Number (GTIN). On joining a GS1 Member Organisation, the brand owner licences a GS1 Company Prefix *or individual GTIN*, which is for the sole use of the company to which it is assigned.

The brand owner is the organisation that owns the trade item specifications and may be:

- The manufacturer or supplier: The company that manufactures the trade item or has it manufactured, in any country, and sells it under its own brand name.
- The importer or wholesaler: The importer or wholesaler that has the trade item manufactured, in any country and sells it under its own brand name or the importer or wholesaler that changes the trade item (for example by modifying the packaging of the trade item).
- The retailer: The retailer that has the trade item manufactured, in any country, and sells it under its own brand.

4.3.3.2 Responsibility exceptions and non-branded items

There are some exceptions to the rules regarding responsibility described in:

- **Non-branded items:** Items without a brand name and generic items (not private labels) are still assigned Global Trade Item Numbers (GTINs) by their manufacturer. As different manufacturers and/or suppliers may supply items that appear identical to the buyer (this could be a consumer as well as a retailer or manufacturer), it is possible that items that are

apparently the same have different GTINs. Companies that trade in these items need to organise their computer applications (e.g., replenishment programs) to cope with this eventuality. Examples of items that sometimes have no brand are apples, plasterboard, candles and drinking glasses. Examples for trade items that sometimes have no brand and are not intended for retail include salt, fragrances and food cans.

- **Customer specific items:** If a trade item is made specifically for one trade customer (buyer) and is orderable only by this customer, then the buyer assigns the GTIN. In this case the GTIN SHOULD be formed from the customer's GS1 Company Prefix (see section [1.4.4](#)) or individual GTIN. If the supplier (seller) sells a trade item to more than one buyer or intends to sell to more than one buyer, then the seller assigns the GTIN.
- **Other exceptions:** If the brand owner does not assign a GTIN, the importer or another intermediary can assign an item a temporary GTIN. This would imply that the importer takes on the role of the brand owner and could, for example, register the product in a data catalogue. This temporary GTIN may be used until a GTIN is assigned in the normal way. Alternatively, a retail organisation can assign an internal number to an item that does not yet have a GTIN assigned to it only if the item is used within its own stores.

4.3.4 Sector-specific rules

4.3.4.1 GTIN allocation rules for healthcare

Specific rules that apply to healthcare trade items can be found in the [GS1 Healthcare GTIN Allocation Rules Standard](#).

4.3.4.2 GTIN allocation rules for upstream suppliers

Specific rules that apply to packaging and raw material trade items supplied to manufacturing companies can be found on <https://www.gs1.org/1/gtinrules/en/tree/29/upstream>.

Upstream suppliers are those companies that typically supply or manufacture trade items that are supplied to other companies for further processing. Examples of these trade items include raw ingredient and packaging materials.

A Global Trade Item Number (GTIN) must be assigned to each predefined trade item and any unit of measure used in the price, order, or invoice process.

- ✓ **Note:** These rules are intended for global use. Exceptions may occur only when local regulatory or legal requirements mandate otherwise.

4.3.4.3 GTIN allocation considerations for apparel and home fashion

The GSMP General Merchandise Work Team validated the original Global Trade Item Number (GTIN) allocation rules and concluded that they are applicable to the apparel and home fashions product category. The content of this section extends the content in section [4.3](#) to cover scenarios specific to apparel and home fashions and may be different in other sectors. This section is the result of the review of the Trade Item Identification and Communication Guidelines (VICS EDI) TIIC, May 2001, by the GSMP Work Team.

4.3.4.3.1 Pre-pack/multi-pack/set-pack

For a pre-pack or assortment of trade items, each different item within the pre-pack will be assigned a GTIN maintaining the one-to-one relationship between trade item/colour ID/size ID and GTIN. Each GTIN must be marked so as to enable scanning at the point-of-sale. A separate, unique GTIN is assigned to each orderable pre-pack. This GTIN is not intended to be scanned at the retail point-of-sale. Different pre-packs of trade items are assigned different GTINs when either the component item or quantity contents of the pre-packs are different.

A multi-pack is a group of trade items (the same or different) that are intended to be sold as a single consumer unit at the point-of-sale (e.g., a three-pack of men's white T-shirts or a 12-piece set of glassware). A multi-pack is not intended to be broken apart and sold as individual trade



4.6 GLN rules

4.6.1 Allocating Global Location Numbers

4.6.1.1 Allocation general rule

A separate, unique GLN is required to be allocated whenever there is a need to distinguish one party and/or location from another. (e.g., each store location is required to have a separate GLN to identify the physical locations).

GLNs SHALL be allocated by the party that defined the party/location in support of their business operations.

The below defines which party is responsible for allocating the GLN to a legal entity, function, physical location, or digital location. If a GLN is used to identify a combination of legal entity, function, physical location and/or digital location, all applicable rules SHALL apply.

- **Legal entity:** Allocating a GLN to a legal entity is the responsibility of the legal entity itself or another legal entity that is part of the same organisation. If multiple legal entities within an organisation have licensed GS1 Company Prefixes **or individual GLNs**, the parties SHOULD coordinate GLN allocation.
- **Function:** The organisation identifying their own, internal functions to support their business operation is responsible for allocating GLN.

When representing itself as a legal entity or function in transactions, an organisation SHALL only use GLNs **for which it has appropriate the organisation has licensed**. This means that an organisation SHALL NOT use **a GLN from another organisation's licence to represent itself as a party, another organisation's GLN to represent itself as a party.**

- **Physical location:** The owner or primary user(s) of the physical location is responsible for 403 allocating the GLN.
 - When a party allocates a GLN to a location they do not own, that party SHOULD inform the owner and/or primary users of the location.
 - Parties SHALL use a GLN allocated by their own organisation, the owner of the location, or a primary user that is a business partner directly involved in a specified transaction. A party SHALL NOT use a GLN allocated by an organisation that does not directly relate to their business relationships.
 - **Digital location:** The owner or primary user(s) of the digital location is responsible for allocating the GLN.
- ✔ **Note:** The owner is the organisation that has the legal or rightful title to the physical or digital location. A primary user is an organisation that directly transacts with a physical or digital location. There may be multiple primary users associated to a single location.

Example: an owner would be the organisation that has legal ownership of a mall. A primary user would be the organisation that is leasing a space within the mall for their retail store.

When allocating a GLN, an organisation SHOULD: :

1. Verify that the party and /or location is not already identified by a GLN.
2. Associate master data for the identified party/location to the GLN.
3. Communicate the GLN and associated date to trading partners in a timely manner.

The GLN allocated to a party/location SHOULD be communicated to partners by the organisation that allocated the GLN in advance of a transaction/delivery so that all systems can be prepared for the interaction. See section [4.6.2](#) for additional details.

Individual companies need to determine how they allocate GLNs. An organisation may use a single GLN for order, delivery and invoice because each process is undertaken at the organisation (legal



Technical analysis of the linear symbol

GS1 parameters	Comment reference	Assessed	Within standard range	Required	ISO/IEC parameters	Comment Reference	Grade ISO/IEC	Within standard range	Required
Symbol structure ¹			✓	(dependent on symbol encoded)	Overall ISO/IEC grade ²		3.8/06/660	✓	≥ 1.5
X-dimension (magnification)		0.330mm ³ (0.0130 inch)	✓	0.264 -0.660 mm (0.0104 - 0.0260 inch)	Decode		4.0	✓	
Barcode height		23mm (0.9 inch)	✓	22.85mm (0.900 inch)	Symbol contrast		3.8	✓	
Quiet Zone (left)			✓	3.63mm (0.143 inch)	Minimum reflectance		4.0	✓	
Quiet Zone (right)			✓	2.31mm (0.091 inch)	Edge contrast		4.0	✓	
Human readable			✓	One-to-one match with barcode data	Modulation		4.0	✓	
Barcode width			✓	≤165.10 mm (≤6.500 inch)	Defects		4.0	✓	
Validity of GS1 Company Prefix			✓		Decodability		4.0	✓	
Data structure			✓	(dependent on structure encoded)					
Educational comments ⁴									

(1) Includes check digits, ITF-14 wide-to-narrow ratio, etc.

(3) The text in red in this table provides sample results from the testing of an EAN/UPC symbol.

(2) 0.5 acceptable for ITF-14 with X-dimension ≥ 0.635mm

(4) Educational comments are based on the technical analysis of the symbol. In this comment box the operator comments on what the problem is and how to make the symbol better

Notes (informative localised)

It is the responsibility of the GS1 Company-Prefix-identification licensee or GS1-identification-key-licensee to ensure the correct use of the GS1 Company Prefix and/or the individually licensed keys and the correct allocation of the data content.

Rejection of products should not necessarily be based only on an out of specification results

Barcode verifiers are measuring devices and are tools that can be used for assisting in quality control. The results are not absolute in that they do not necessarily prove or disprove that the barcode will scan.

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Technical analysis of the two dimensional symbol

GS1 parameters	Comment reference	Values	Within standard range	Required	ISO/IEC parameters	Comment reference	ISO grade 4 to 0	Within standard range	Required
Symbol structure			✓	Dependent on symbol encoded	Overall ISO grade			✓	
Matrix size		NN X NN	✓		Decode		PASS/F AIL	✓	
X-dimension/cell size		mm (inch)	✓		Cell contrast/Symbol contrast		4 - 0	✓	
Data structure			✓	Dependent on structure encoded	Cell modulation/Modulation		4 - 0	✓	
Validity of GS1 Company Prefix			✓		Axial nonuniformity		4 - 0	✓	
Human readable			✓		Grid Nonuniformity		4 - 0	✓	
					Unused Error Correction (UEC)		4 - 0	✓	
					Print growth (horizontal) informative only		0%-100%	Non-graded	
					Print growth (vertical) informative only		0%-100%	Non-graded	
					Fixed pattern damage		4 - 0	✓	
					Clock track and solid area regularity*		4 - 0	✓	
					Quiet Zones (QZL1, QZL2)*		4 - 0	✓	
					L1 and L2*		4 - 0	✓	
					Format information**				
					Version information**				
Educational comments ⁶									

Notes (informative localised)

It is the responsibility of the GS1 ~~Company Prefix~~ identification licensee or GS1 identification key licensee to ensure the correct use of the GS1 Company Prefix and/or the individually licensed keys the correct allocation of the data content.

Rejection of products should not necessarily be based only on an out of specification results

Barcode verifiers are measuring devices and are tools that can be used for assisting in quality control. The results are not absolute in that they do not necessarily prove or disprove that the barcode will scan.

This report may not be amended after issue. In the event of a dispute over contents the version held at [TESTING AGENCY] will be deemed to be the correct and original version of this report.

* GS1 DataMatrix Only, see ISO/IEC 15415

** GS1 QR Code Only, see ISO/IEC 15415,

all others are both for GS1 DataMatrix and GS1 QR Code and GS1 Dotcode

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⁶ Educational comments are based on the technical analysis of the symbol. In this comment box the operator comments on what the problem is and how to make the symbol better by explaining the parameter's meanings.



Term	Definition
Global Shipment Identification Number (GSIN)	The GS1 identification key used to identify a logical grouping of logistic or transport units that are assembled by the consignor (seller) for a transport shipment from that consignor to one consignee (buyer) referencing a despatch advice and/or BOL. The key comprises a GS1 Company Prefix, shipper reference and check digit.
Global Trade Item Number® (GTIN®)	The GS1 identification key used to identify trade items. The key comprises a GS1 Company Prefix, an item reference and check digit.
GS1 Application Identifier (AI)	The field of two or more digits at the beginning of an element string that uniquely defines its format and meaning.
GS1 Application Identifier data field	The data used in a business application defined by one GS1 Application Identifier.
GS1 check character calculation	An algorithm used by the GS1 system for the calculation of the check characters to verify accuracy of data.
GS1 check digit calculation	An algorithm used by the GS1 system for the calculation of a check digit to verify accuracy of data. (e.g., modulo 10 check digit, price check digit).
GS1 Common Currency Coupon Code	An identification number for coupons issued in a common currency area (e.g., the euro currency) that uses the GS1 Prefixes 981-983.
GS1 Company Prefix (GCP)	A unique string of four to twelve digits used to issue GS1 identification keys. The first digits are a valid GS1 Prefix and the length must be at least one longer than the length of the GS1 Prefix. The GS1 Company Prefix is issued by a GS1 Member Organisation. As the GS1 Company Prefix varies in length, the issuance of a GS1 Company Prefix excludes all longer strings that start with the same digits from being issued as GS1 Company Prefixes. See also U.P.C Company Prefix.
GS1 Company Prefix licensee	The entity to which a GS1 Company Prefix is licenced-
GS1 Composite symbology	A GS1 system composite symbol consists of a linear component (encoding the item's primary identification) associated with an adjacent Composite Component (encoding attribute data, such as a batch number or expiration date). The composite symbol always includes a linear component so that the primary identification is readable by all scanning technologies, and so that imager scanners can use the linear component as a finder pattern for the adjacent 2D Composite Component. The composite symbol always includes one of three multi-row 2D Composite Component versions (e.g., CC-A, CC-B, CC-C) for compatibility with linear- and area-CCD scanners and with linear and rastering laser scanners.
GS1 DataBar Composite symbology family	A family of symbols comprising all the GS1 DataBar barcodes when an accompanying Composite Component is printed directly above the linear component.
GS1 DataBar Expanded barcode	A barcode that encodes any GS1 identification key plus attribute data, such as weight and "best before" date, in a linear symbol that can be scanned omnidirectionally by suitably programmed point-of-sale scanners.
GS1 DataBar Expanded Stacked barcode	A barcode that is a variation of the GS1 DataBar Expanded barcode that is stacked in multiple rows and is used when the normal symbol would be too wide for the application.
GS1 DataBar Limited barcode	A barcode that encodes a GTIN with a leading digit of zero or indicator digit of one in a linear symbol; for use on small items that will not be scanned at the point-of-sale.
GS1 DataBar Omnidirectional barcode	A barcode that encodes a GTIN. It is designed to be read by omnidirectional scanners.
GS1 DataBar Retail POS family	The members of the GS1 DataBar symbology family designed to be read in segments by omnidirectional scanners at retail POS: GS1 DataBar Omnidirectional; GS1 DataBar Stacked Omnidirectional; GS1 DataBar Expanded; GS1 DataBar Expanded Stacked.
GS1 DataBar Stacked barcode	A barcode that is a variation of the GS1 DataBar Truncated barcode that is stacked in two rows and is used when the GS1 DataBar Truncated barcode would be too wide for the application.
GS1 DataBar Stacked Omnidirectional barcode	A barcode that is a variation of the GS1 DataBar symbology that is stacked in two rows and is used when the GS1 DataBar Omnidirectional symbol would be too wide for the application. It is designed to be read by omnidirectional checkout scanners.
GS1 DataBar Truncated barcode	A barcode that is a truncated version of the GS1 DataBar Omnidirectional barcode. It is used when the GS1 DataBar Omnidirectional barcode would be too tall for small item marking applications. It is not intended for omnidirectional checkout scanning.
GS1 DataBar®	A family of barcodes, including GS1 DataBar Omnidirectional; GS1 DataBar Stacked Omnidirectional; GS1 DataBar Expanded; GS1 DataBar Expanded Stacked GS1 DataBar Truncated, GS1 DataBar Limited and GS1 DataBar Stacked symbols.



Term	Definition
GS1 DataMatrix	A subset of Data Matrix which uses the function that allows the encoding of element strings.
GS1 Digital Link URI	A Web URI syntax for expressing GS1 identifier keys and attributes in a format using GS1 Application Identifiers and GS1 Application Identifier data fields as specified in the GS1 Digital Link standard.
GS1 DotCode	A subset of AIM DotCode which uses the function that allows the encoding of element strings.
GS1 EANCOM®	The GS1 standard for Electronic Data Interchange (EDI) that is a detailed implementation guideline of the UN/EDIFACT standard messages using the GS1 identification keys.
GS1 element string	A syntax for expressing GS1 identifier keys and attributes in a format using GS1 Application Identifiers and GS1 Application Identifier data fields.
GS1 Global Office (GS1 GO)	GS1 is a neutral, not-for-profit organisation that provides global standards for efficient business communication. The Global Office, located in Brussels (Belgium) and Ewing, NJ (USA) is the guardian, and provides an open, user-driven, forum for ongoing maintenance and development, of the GS1 standards, guidelines and statutes.
GS1 Global Standards Management Process (GSMP)	GS1 created the Global Standards Management Process (GSMP) to support standards development activity for the GS1 system. The GSMP uses a global consensus process to develop supply chain standards that are based on business needs and user-input
GS1 identification key	A unique identifier for a class of objects (e.g., a trade item) or an instance of an object (e.g., a logistic unit).
GS1 identification licensee	The person (natural or legal) to which the right to use a GS1 Company Prefix or a GS1 identification key has been granted through an agreement with a GS1 Member Organisation or GS1 Global Office, acting as licensor. GS1 identification licensees may use the licensed GS1 Company Prefix or GS1 identification key, subject to any terms and conditions in place when the licence was granted or set by the licensor from time to time, until such time as the agreement under which the licence was granted expires or in perpetuity if the agreement has no expiration date.
GS1 Member Organisation (GS1 MO)	A member of GS1 that is responsible for administering the GS1 system in its country (or assigned area). This task includes, but is not restricted to, ensuring user companies make correct use of the GS1 system, have access to education, training, promotion and implementation support and have access to play an active role in GSMP.
GS1 Prefix	A unique string of two or more digits issued by GS1 Global Office and allocated to GS1 Member Organisations to issue GS1 Company Prefixes or allocated to other specific areas.
GS1 QR Code	A subset of QR Code which uses the function that allows the encoding of element strings.
GS1 symbologies using GS1 Application Identifiers	All GS1 endorsed barcode symbologies that can encode more than a GTIN namely GS1-128, GS1 DataMatrix, GS1 DataBar, GS1 QR Code, GS1 DotCode and GS1Composite.
GS1 system	The specifications, standards and guidelines administered by GS1.
GS1 UIC Extension 1	Character that follows and extends the EU 2018/574 UIC to identify a country of ID Issuer's appointment and operation.
GS1 UIC Extension 2	Character that follows GS1 UIC Extension 1 and extends the EU 2018/574 UIC to identify whether a GS1 or non-GS1 based algorithm is used.
GS1 XML	The GS1 standard for extensible markup language (XML) schemas providing users with a global business messaging language of e-business to conduct efficient internet-based commerce.
GS1®	Based in Brussels, Belgium and Princeton, USA, it is the organisation that manages the GS1 system. Its members are GS1 Member Organisations.
GS1-128 symbology	A subset of Code 128 which uses the function that allows the encoding of element strings.
GS1-8 Prefix	A unique string of two or more digits issued by GS1 Global Office and allocated to GS1 Member Organisations to issue GTIN-8s or allocated to issue RCN-8s (see RCN-8).
GTIN plus attribute(s) flag	A trigger in systems to determine if additional processing is required by a barcode user for a given GTIN.
GTIN-12	The 12-digit GS1 identification key composed of a U.P.C. Company Prefix, item reference and check digit used to identify trade items.
GTIN-13	The 13-digit GS1 identification key composed of a GS1 Company Prefix, item reference and check digit used to identify trade items.
GTIN-14	The 14-digit GS1 identification key composed of an indicator digit (1-9), GS1 Company Prefix, item reference and check digit used to identify trade items.