GS1 US THE GLOBAL LANGUAGE OF BUSINESS

GS1 BARCODE CHART

THIS LIST IS A SUBSET, NOT ALL INCLUSIVE

BARCODE	DISPLAY	NUMERIC DIGITS	DATA STRUCTURE	USAGE	USAGE EXAMPLES
EAN-8		**8**	**GTIN-8**	The EAN-8 is used on small packages where the EAN-13 barcode would be too large. It encodes the Global Trade Item Number® (GTIN-8) and is also used by retailers to identify privately owned brand products sold only in their stores.	Used on small retail items such as cosmetics, that cross point of sale applications.
UPC-A		**12**	**GTIN-12**	The UPC-A uniquely identifies a product for retail checkout. It encodes the Global Trade Item Number (GTIN-12) and is also used by retailers to identify privately owned brand products sold only in their stores.	Used on retail items that cross point of sale applications.
UPC-E		**12**	**GTIN-12**	The UPC-E allows the use of U.P.C. barcodes on smaller packages where the UPC-A may not fit. It utilizes a zero-suppression method to compress the Global Trade Item Number (GTIN-12) into an 8-digit format.	Used on small retail items such as cosmetics, packs of chewing gum, and cigarettes.
EAN-13		**13**	**GTIN-13**	The EAN-13 is used for marking products often sold at retail point of sale and general distribution. It encodes the Global Trade Item Number (GTIN-13). Used on retail product marking world wide. Also used by retailers to identify privately owned brand products sold only in their stores.	Used on retail items that cross point of sale applications such as periodicals, magazines, and books, and also used on coupons outside of North America.
ITF-14		**14**	**GTIN-12** **GTIN-13** **GTIN-14**	The ITF-14 is generally used on higher packaging levels of a product, such as a case or carton. It lends itself well to be directly printed on corrugate material. It encodes three specific instances of the Global Trade Item Number (GTIN), (e.g., GTIN-12, GTIN-13, GTIN-14).	Used on standard product groupings such as a case of dish washing detergent (24 bottle count).
GS1 DATABAR™ TRUNCATED		**14**	**GTIN-12** **GTIN-13** **GTIN-14**	The GS1 DataBar Truncated is designed for very small item identification and is mainly used within the healthcare industry. It cannot be scanned with Flatbed POS scanners. It encodes three specific instances of the Global Trade Item Number (GTIN), (e.g. GTIN-12, GTIN-13, GTIN-14).	Used on unit dose pharmaceuticals.
GS1 DATABAR STACKED OMNIDIRECTIONAL		**14**	**GTIN-12** **GTIN-13**	The GS1 DataBar Stacked Omnidirectional is used to condense the GTIN information into a more compact and square barcode suitable for use on small packages and loose fresh produce. It has the capability for omnidirectional scanning. Retail point-of-sale accepts GTIN-12 and GTIN-13 structures.	Used on very small consumer items GTIN Only (i.e., loose produce).
GS1 DATABAR LIMITED		**14**	**GTIN-12** **GTIN-13** **GTIN-14**	The GS1 DataBar Limited is designed for very small item identification and are mainly used within the healthcare industry. It cannot be scanned with Flatbed POS scanners. It is "limited" to the use of zero '0' or one '1' in the first data position.	Used on very small healthcare items such as ampoules.

BARCODE	DISPLAY	ALPHA/NUMERIC	DATA STRUCTURE	USAGE	USAGE EXAMPLES
GS1-128		UP to 48 characters	Concatenated strings using GS1 Application Identifiers	The GS1-128 uses a series of GS1 Application Identifiers (AIs) to include additional data such as Best Before Date, Batch/Lot Number, Quantity, Weight, and many other attributes. It also encodes the SSCC (Serial Shipping Container Code).	Used on large bulk items such as pallets or logistic units.
GS1 DATABAR EXPANDED		Up to 74 numeric or 41 alphabetic characters	Concatenated strings using GS1 Application Identifiers	The GS1 DataBar Expanded is used for marking products that cross point of sale applications. It encodes any of the GS1 Identification Numbers plus supplementary AI Element Strings, such as Weight and Best Before Date, in a linear symbol that can be scanned omnidirectionally by suitably programmed scanners.	Used for additional information such as expiration date on fresh foods, and also used on coupons in North America.
GS1 DATABAR EXPANDED STACKED		Up to 74 numeric or 41 alphabetic characters	Concatenated strings using GS1 Application Identifiers	The GS1 DataBar Expanded Stacked is used for marking products that cross point of sale applications. It encodes any of the GS1 Identification Numbers plus supplementary AI Element Strings, such as Weight and Best Before Date, in a ***stacked*** linear symbol that can be scanned omnidirectionally by suitably programmed scanners.	Used for additional information such as expiration date on fresh foods, and also used on coupons in North America.
GS1 DATAMATRIX		Up to 2,335 characters	Concatenated strings using GS1 Application Identifiers	The GS1 DataMatrix is a two-dimensional matrix symbol with specific healthcare applications in the GS1 System. It requires image based scanners and it is currently specified for healthcare items.	Used for direct part marking of surgical instruments.
GS1 QR CODE		Up to 4,296 characters	GS1 Application Identifiers AI (01) and AI (8200)	The GS1 QR Code is a two-dimensional symbol with specific marketing applications in the GS1 System. It requires image based scanners and it is currently specified to capture marketing information.	Used for marketing information retrieved by a consumer from a point of sale product.

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THE GLOBAL LANGUAGE OF BUSINESS

GS1 SYSTEM OF STANDARDS

IDENTIFY

GS1 IDENTIFICATION NUMBERS

COMPANY
Global GS1 Company Prefix
Global Location Number (GLN)

PRODUCT
Global Trade Item Number® (GTIN®)
Serialized Global Trade Item Number (EPC®/SGTIN)

LOCATION
Global Location Number (GLN)

LOGISTICS
Serial Shipping Container Code (SSCC)
Global Shipment Identification Number (GSIN)

ASSETS
Global Individual Asset Identifier (GIAI)
Global Returnable Asset Identifier (GRAI)

SERVICES AND OTHER
Global Service Relation Number (GSRN)
Global Document Type Identifier (GDTI)

CAPTURE

GS1 DATA CARRIERS

BARCODES

EAN/UPC

GS1 DataBar®

ITF-14

GS1 DataMatrix

GS1-128

EPC-ENABLED RFID TAGS

Electronic Product Code (EPC®) RFID Encodings

HF RFID

UHF RFID

SHARE

GS1 DATA EXCHANGE

MASTER DATA
Global Data Synchronization Network™ (GDSN®)
GLN Registry™

TRANSACTIONAL DATA
Electronic Data Interchange (EDI)

PHYSICAL EVENT DATA
Electronic Product Code Information Services (EPCIS)

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