Toshiba GCS Global Labeling Guide

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Owner:

TGCS Fulfillment Engineering
Roger Asbill

Toshiba Global Commerce Solutions
3901 S. Maimi Blvd.
Durham, NC 27703
USA

✉ : rasbill@toshibagcs.com

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1 Introduction

The Toshiba Global Commerce Solutions (TGCS) Global Labeling Guide specification (hereinafter referred to as "**the Guide**") define the content and format of labels to ensure conformance to the needs of TGCS, its business partners, and its customers.

1.1 Scope and Application

The Guide applies to:

- Shipments of parts and products from suppliers to TGCS manufacturing / fulfillment sites.
- All products (parts, components, machines) that are shipped to fulfill a TGCS customer order.

Examples of labels in scope include:
- Part and subassembly labels, section 4
- Serialized product labels, section 0
- Packing Lists, section 6
- Product (POS) labels, section 7
- Case Content labels, section 8
- Shipping labels, section 9
- Compliance labels, section 10
- Repair Identification (RID) "tags", section 11

The Guide does not apply to products and shipments between TGCS's contract manufacturers and their suppliers, except labeling of FRUs (Field Replaceable Units) that are merged into the TGCS service parts network.

Note: Special customer requirements for custom labels (via RPQ or PO) may take precedence over or supplement the Guide in certain situations.

Suppliers of TGCS parts – Sections 4 (parts) and 5 (serialized machines) deal with part number labels.

Sections 6, 7, 8, and 9 apply only to labels applied by Tier 1 TGCS Customer Fulfillment Centers, and do not affect typical part and machine suppliers.

1.2 Objectives

All TGCS sources of supply and other parties that produce products or apply labelling on behalf of TGCS are required to follow the Guide to achieve the following objectives;

- To standardize the look and content of TGCS's labels,
- To satisfy the needs of TGCS's business partners and distributors,
- To comply with TGCS standards (see Appendix D, References and Standards),
- To comply with external industry standards and best practices (e.g. ISO/IEC, ANSI, CEA, etc.,),
- To comply with all applicable regulatory requirements.

1.3 Compliance

TGCS requires compliance in the appearance and content of product package labels, packing lists, shipping labels and all bar codes used on these items for any entity performing work on TGCS's behalf. The current version is

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released and available in Agile. Do not relay on prior printed copies.

Responsible owners of labeling processes must upgrade their systems and equipment (e.g. software, printers etc.) if necessary to comply with the Guide.

For vendors and suppliers providing parts, products or service to TGCS, the Guide must be included in the RFQ.

1.4 Requirements

This section defines general rules that apply to all labels covered by the applicable sections of the Guide.

1.4.1.1 *Rules for Bar Code Printing*

Apply the following guidelines for printing bar codes on labels:

a) All rules for bar codes and the encoding of data elements shall be based on 3ADLABEL001*, Automatic Identification for Packaging, Distribution and Manufacturing*.
b) Bar codes must be in Code 3 of 9 (Code 39 in this document) or Code 128 symbology. Default should be Code 39. In cases of space limitations on labels, code 128 may be used. The only exceptions are UPC-A/EAN 13 bar code symbols on the product package label. Suppliers are permitted to include 2D barcodes for Mfg use only on some labels.
c) The content of the bar code must be the data identifier followed by the actual data. Spaces, parentheses, colons, dashes, and similar characters must be excluded.
d) Generally, there should not be an interpretation field below or adjacent to the bar code. The preferred way of representing the bar-coded information in human readable format according to ANSI and ISO standards is to print it above the bar code. There are some exceptions to the title and HRI "human readable interpretation" location to align with existing practices. Those exceptions are noted in the appropriate sections of the guide.
e) Typically print above each bar code a "bar code title" representing the encoded data element's name, preceded by its data identifier in parenthesis, and followed by the HRI of the encoded data. See figure 1.
f) The data element's name presented in the bar code title may be abbreviated as appropriate. For example, the title "TGCS Part Number" may be abbreviated by "TGCS Part No." or "TGCS P/N".
g) The font and size of any human readable interpretation of bar codes should be printed as indicated in *Table 2: Printing format of bar code titles and human readable interpretation* below. Font point sizes shown in Table 1 are suggested minimums. Font size should be adjusted as appropriate for the item and label size.
h) The bar code height should not be less than 15% of its width but be at least 5 mm (0.2 inch) in height. See figure 2.
i) The X dimension (= narrow element width) of a bar code should be within a range of 0.17 mm (0.007 inch) to 0.432 mm (0.017 inch). Symbols with narrow elements at the lower end of this range, i.e. 0.17 mm (0.007 inch) to 0.330 mm (0.013 inch) require special care to meet the bar code quality requirements. See figure 2.
j) For Code 39 bar codes, the measured wide to narrow ratio (N) of the elements shall be between 2.25:1 and 3.2:1. The recommended ratio is 3.0:1, providing space permits. See figure 2.
k) Each bar code must be printed with leading and trailing quiet zones not less than 6.4 mm (0.25 inch). See figure 2.
l) To maximize bar code quality and to permit printing of 2D symbols, thermal transfer printers should primarily be considered to print labels, and laser printers should be used to print non-label material such as delivery notes and packing lists.
m) Labels printed on direct thermal printers are not allowed for TGCS labels covered by the Guide. Labels produced with these printers turn typically black after prolonged exposure to light, higher temperature, and/or humidity.
n) A procedure must be in place to assure continuing quality of bar codes printed on labels, including prompt replacement of ribbons, cleaning of print heads and periodically evaluating print quality at the source before the bar codes are dispersed in the supply chain. To achieve this a bar code verifier that assigns a grade on

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various technical aspects of the bar code. "A" is the highest grade is recommended. Bar codes should scan at grade "C" or higher.

o) Bar codes should be presented with the bars in a vertical ("picket fence") orientation and not "ladder" style.

Bar Code Title : Human Readable Interpretation (HRI) (P) TGCS Part No.: **3AA12345678**	In this example: Bar Code Title: **(P) TGCS Part No.:** Data Identifier: **P** HRI: **3AA12345678** Encoded Content: ***P3AA12345678*** **NOTE: The start/stop character ampersands (*) are encoded, but not shown in the HRI or title**

Table 1: Barcode Presentation

Element / Segment	Examples	Recommended Font	Comments
Bar Code Title	(P) TGCS Part Number: (P) TGCS Part No.: (P) TGCS P/N: (1S) ID No.:	Arial or "Zebra" scalable/smooth sans serif font. Typical minimum(1) font size is 9 pt.	• Must begin above the bar code's left quiet zone. • Consists of the data identifier in parentheses followed by a description and a colon. • See Appendix: A, *Data Identifiers* for a list of common data identifiers.
Human Readable Interpretation	**3AA12345678**	Arial or "Zebra" scalable/smooth sans serif font Typical minimum (1) font size is 12 pt.	• Must appear in a larger and/or bolder font than the bar code title. • Does not include the data identifier. • Should not include Code 39 Start/Stop characters; however, exceptions do occur. • Certain data elements must appear in a larger font for enhanced visibility.

Table 2: Printing format of bar code titles and human readable interpretation

Note (1): Font sizes should be adjusted as appropriate for item and label size.

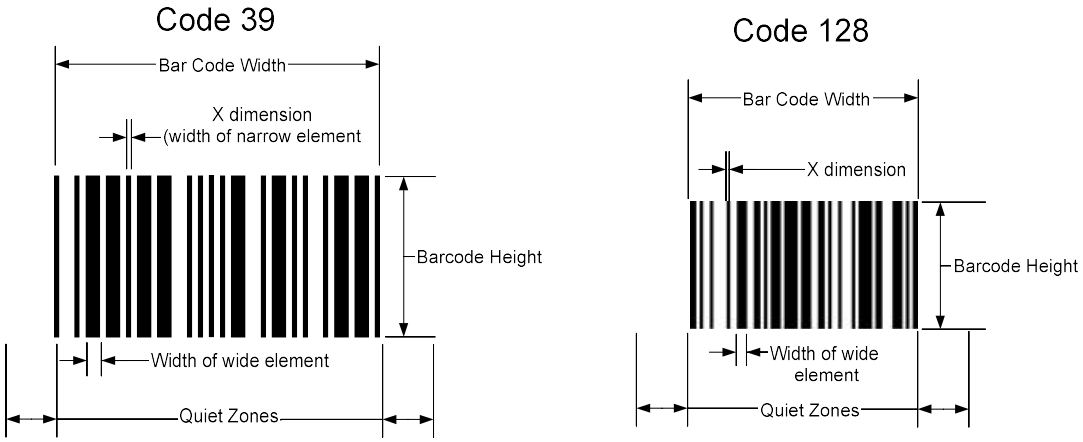

Figure 1: Bar Code Parameters

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1.4.2 Rules for 2D Symbols

Important: 2D Symbols can be used ONLY to supplement standard barcodes. They cannot replace them.

If data is to be encoded using a 2D symbol, one of the following 2D symbologies shall be used:

- PDF417
- DataMatrix (preferred for component or part marking)

Note: MAXICODE should only be used for internal supplier applications or if required by carriers as e.g. UPS.

The syntax in encoding the data elements shall conform to ISO/IEC 15434 - Transfer Syntax for High Capacity ADC Media, and use Format Header "06" (Data using Data Identifiers). See 3ADLABEL001 for details on data syntax and format.

1.4.3 Human Readable Text

The following rules apply to human readable (HR) text on labels;

a) The default label language is English; however, compliance labels may be required to be in other languages.
b) The minimum height of human readable text characters shall be 9 point in bar code titles and at least 12 point in size elsewhere. Note these are the minimum sizes. If possible, HR should be 16 pt. There are certain exceptions to this general rule. For some commodities, the maximum label size may be limited by the size of the part (e.g. a DIMM or SSD), and therefore the minimum font size may fall below the 9 pt. minimum.
c) Dates shall be printed in ISO YYYY-MM-DD format.
d) Leading zeros shall be omitted only from explicit numerical values (e.g. weights, dimensions, and quantities). Leading zeros in item identifiers are significant, and must be shown and encoded (e.g. P/Ns, S/Ns, Dates, etc.).
e) Quantities less than one shall begin with a zero to the left of the decimal point (e.g. 0.41 lbs.).
f) Machine serial numbers shall be printed without dashes, eg.41A1234, not 41-A1234.

Note: The examples shown throughout the Guide are Code 39 symbology, therefore the Start & Stop characters (*) are shown in the encoded data examples, however, the human readable interpretation should NOT include these start/stop characters. Encoded values do not contain spaces, colons, parenthesis, or title. Encoding includes only [Start][DI][Value][Stop].

1.4.4 Label Design

For details on the proper design of specific labels, refer to the appropriate section in the Guide. In situations where multiple design examples are shown, confer with the responsible TGCS Mfg Engineer, procurement rep, or labeling focal point to resolve any questions. This also applies to guidance on which of the "optional" data elements are to be included and which are not.

Note that the elements included are the highest significance, not the design layout. If suppliers have the need to include additional elements on labels that are also used by TGCS, typically there is no problem accommodating that need if all TGCS requirements are met.

1.4.5 Label Application and Placement

a) Labels should not obstruct other information on the packaging e.g. handling symbols or graphics.
b) Leave sufficient space from the edges for corner posts and banding.
c) Ensure that the label is vertically straight and parallel with the sides.
d) For typical packages, apply only one label per package.
e) For case labels, case contents labels, and shipping labels, the label must not straddle the separation of two boxes to avoid formation of wrinkles or fracture.

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f) Apply the labels wrinkle free. Take special care when applying to stretch wrapped surfaces. Bar codes on wrinkled labels may not read.
g) Place labels on vertical surfaces whenever feasible. Place on the top surface if there is not enough space on vertical surfaces.
h) In case of relabeling, remove the label that is obsolete if feasible without damaging the surface. If the obsolete label cannot be removed, cover it up with the new label or a blank label. **Note:** This especially applies to shipping labels, which may show different case numbers, or labels with a different country of origin.

1.4.6 Printing Equipment

The user should ensure that their label printing equipment and label stock can support the quality of labels required, ensure HR legibility at the chosen font size, and that barcodes scan reliably. The minimum requirements are an impact, laser, or thermal transfer printer capable of printing at least 200 dpi (dots per inch). For some applications (e.g. small part labels), a higher resolution printer may be required.

The use of impact printers and multiple part paper with impact printers is strongly discouraged and is allowed only in very limited cases with prior TGCS approval. It should be noted that bar codes on the second, third, and fourth copies come out blurry and are very difficult or impossible to scan. If multiple part paper is used, the original document must be sent with the shipment.

1.4.7 Label Stock

The label material should be chosen depending on the specific requirements of the application. If there are no specific requirements, matte (non-glossy), paper-based labels with permanent pressure sensitive adhesives should be used. A typical application for this type of label stock are product package labels or shipping labels. Part labels that are applied directly to the part may require a different label material, e.g. polyester label material.

Black printing on white background is preferred for all applications.

For size of the labels, refer to the requirements outlined in the appropriate section of the Guide.

1.4.8 Review and Deviation Procedure

All new label designs must be reviewed and approved by TGCS. Please send copies of label designs and placement drawings to the appropriate TGCS product ME or labeling focal point for review. They will review, provide advice on areas of concern, and approve when complete.

Deviations to product and part labeling requirements in the Guide must be documented and approved by the TGCS product Mfg. Engineer, who will consult with the labelling focal point as necessary.

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2 Country of Origin

2.1 Specification

See TGCS Standard 3ADMECH1001 *Country of Origin Labeling for Products, Sub-assemblies and Parts* for complete Country of Origin marking requirements. Sections of that standard have been reproduced here for convenience, but compliance with that standard is mandatory.

2.2 General Guidance

This section defines the legal country of origin (CoO) information commonly required on all TGCS products, sub-assemblies, and parts. It also includes the locations for this information and the design criteria for marking.

For the purpose of this document, a product is defined as any hardware system, machine unit or device offered for sale or lease by TGCS. A part or sub-assembly is a component of a product. All products produced, procured, or repaired by or for TGCS, including finished products, Field Replaceable Units (FRUs), sub-assemblies, parts, media recorded with software programs, manuals accessories and supply items must be marked with the appropriate country of origin even if the item is not expected to be in international commerce.

Compliance with this document will ensure consistency of country of origin information for TGCS products, sub-assemblies, and parts from all sources and manufacturing locations. It will satisfy the presently known technical, legal, and national requirements for all countries in which TGCS markets or supplies products.

2.3 Physical Requirements

This marking identifies the country where the product, part, or assembly was created. Country of origin marking may be combined with other marking requirements as long as all requirements are met for the combined information.

County of Origin should be prominently marked and the size of the text should be similar to other text on the label. The minimum size of type shall give an upper-case letter height of 1.5mm. If the information is provided on a label, the material used for the label should be suitable for permanent, durable attachment to the material of the part. The same requirements apply whether labels are pre-printed or printed as part of the manufacturing process.

The mark shall be permanently applied to the goods and the container or packaging in which the goods will be displayed or sold to the end user.

2.4 Content

The mark must include the full name of the country of origin in English. The 2-character ISO 3166 country codes, alone, are NOT acceptable for marking country of origin. The only acceptable abbreviations are UK for the United Kingdom and US or USA for the United States of America. The European Union (EU) should not be used as the name of the country of origin for marking purposes. The mark must be conspicuous, legible and located where it can be easily found.

For legal reasons each country of origin marking **must** be an accurate statement. The Global Logistics and Trade Compliance Office should be consulted if there are questions regarding country of origin - (TGCSGLTC@TOSHIBAGCS.COM).

The definition of country of origin varies somewhat from country to country. In the United States and many other countries, further work or material added to an article in another country must effect a substantial transformation in order to render such other country the 'country of origin'. Substantial transformation occurs when, as a result of manufacturing processes, a new and different article emerges. The new article must have a distinctive name,

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character, or use that is different from that originally possessed by the article or material before being subject to the manufacturing process. Assembly operations that are minimal or simple will generally not result in a substantial transformation.

EU regulations state that the country of origin is the country in which the last substantial process or operation took place, resulting in the manufacture of a new product, or representing an important stage of manufacturing.

2.5 Wording

Country of origin is defined as the country of production, manufacture, or growth of an article, part, assembly, or product. It is the country where the item obtained its present identity as a part, subassembly, assembly, FRU or finished product.

Note: The two-character ISO 3166 country codes, alone, are NOT acceptable for marking country of origin.

The country of origin marking on a product package (immediate container) must be in close proximity to any labeling which designates a US address such as "Toshiba Global Commerce Solutions, Durham, North Carolina USA" or the name of a foreign country that is not the country of origin. Any reference to a foreign country on a product package must not mislead or deceive the buyer as to the actual country of origin of the article.

Note: The country of origin of the final assembly or finished product must be easily visible on the article. To avoid confusion, the Country of Origin marking of components should not be visible on the final assembly or finished product. For example, the country of origin of a machine cover itself should not be visible on the finished machine. Only the country of origin of the finished machine should be easily visible.

The country of origin marking can be designated by a header or title, but a header or title is not required.

To assure compliance with import requirements in certain geographies, when the country of origin label/wording is designated/preceded by a title or header (e.g. “4L”), or an ISO 3166 country code is printed, the title or header should read “Origin", not "Country of Origin". This also applies to packing lists and other shipping documents.

See Appendix E, Common ISO 3166 Codes, for the 2-character country codes most commonly used in TGCS “4L” product origin barcodes.

2.6 Products Manufactured in the US

USA law prohibits the use of an unqualified “Made in USA”, “USA”, or “Manufactured by Toshiba Corporation, Durham, North Carolina” marking unless all or substantially all the contents, components, raw materials and processing or manufacturing that go into the article are of US origin. Based on the nature of products sold by TGCS, this is a rare occurrence. **Before using this wording, consult the TGCS Legal Department.**

Products manufactured and undergoing a substantial transformation in the USA (whether by TGCS or on behalf of TGCS) of contents, components, and raw materials of mixed national origin must carry the wording below. Any modification to this language must be approved by the TGCS legal staff.

Wording (as shown or in all uppercase text)	When permitted
Produced in the US of US and non-US components or Assembled in the US of US and non-US components	Allowable for hardware, ‘Assembled in….’ should be used only for assemblies’.
Printed in USA	Allowable for printed material and publications only.
Recorded in USA	Allowable for recorded media such as CDs only.

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2.7 Products Manufactured outside the US

Products that are made or undergo final assembly outside of the US, and are determined to have undergone a substantial transformation must be marked:

Wording (as shown or in all uppercase text)	When permitted
Made in xxx	where xxx is the full English name of the country of origin
Printed in xxx	where xxx is the full English name of the country where the material was printed. Allowable for printed material and publications only.
Recorded in xxx	where xxx is the full English name of the country where the software was recorded. Allowable for recorded media such as disks, tapes, and CDs only.

Note 1: Canada has certain Canadian content requirements that must be met in order to sell goods in Canada marked either 'Made in Canada' or 'Product of Canada'. For Canadian origin goods, these phrases must not be used without review by TGCS's Legal Department. 'Assembled in Canada' must be used in place of these phrases, unless approved by TGCS's Legal Department

Note 2: In Korea, the country of origin should be shown as "Made in xxx" or "Produced in xxx", where xxx is the full English name of the country of origin. "Assembled in xxx" is not acceptable. This contradicts the country of origin marking required for articles which undergo a substantial transformation by an assembly operation in the US (see Products Manufactured in the US above) or marking required for Canadian origin goods (see Note 1 above). Therefore, if articles from the US or Canada which have an "Assembled in" designation are shipped to Korea, then a different country of origin label must be used. This would be an unusual circumstance for TGCS.

2.8 Product Packages with Products of Multiple Origins

Many TGCS product packages (i.e. kits, integrated machines, orders with multiple features, Miscellaneous Equipment Specifications (MES), etc. contain merchandise of different origins. In such an instance, each article within the product package (immediate container) must be marked with its country of origin and the product package should be marked: "Contains merchandise from: (List the full name of all of the countries in the immediate container, in English)". The country of origin of the article that represents the essential character of a kit must be listed first. For example, a product package which contains an Ethernet adapter "Made in Japan", a cable "Made in Mexico", and a CD-ROM "Recorded in USA" shall be marked: "Contains merchandise from: Japan, Mexico, USA".

2.9 Compact Disc (CD) "Jewel Cases" or sleeves

When CDs are packed in jewel cases or sleeves and the country of origin text on the CD label is not visible, the following country of origin information is required on CD jewel case inserts, inserted into the back side of jewel cases, or on the sleeve:

CD recorded in xxx (where "xxx" is the full name of the country of origin in English)

Insert printed in xxx (where "xxx" is the full name of the country of origin in English)

Note: The text above is required even when the country of origin of the CD and the insert are the same.

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2.10 Electrostatic Discharge (ESD) and Moisture Barrier (MBB) Bags

An ESD or MBB bag is not considered by Customs to be an immediate container. The immediate container is defined as the packaging in which the goods are received by the ultimate purchaser. The ultimate purchaser will not receive the goods packaged in only an ESD or MBB bag. If the ultimate purchaser will receive the goods packaged in a paperboard box, the paperboard box is the immediate container. Other examples of immediate containers include retail packaging, individual product packaging, and individual FRU packaging.

To ensure the Customs regulations are satisfied, TGCS requires that the full English name of the country of origin be marked on the article itself and on its immediate container. It is recommended, but not required, that ESD and MBB bags be marked with country of origin to reduce the likelihood that the bags will be opened during a Customs inspection.

If the country of origin of the ESD or MBB bag itself is marked on the bag, the following country of origin information is required on ESD/MBB bags to avoid confusion:

Made / Produced / Assembled in ... xxx (where "xxx" is the full name of the country of origin of the enclosed article in English)

ESD/MBB bag made in xxx (where "xxx" is the full name of the country of origin of the bag itself in English)

Note: The text above would be required even when the country of origin of the enclosed article and the ESD/MBB bag are the same.

2.11 Case Content & Packing List Country of Origin

The Case Contents label and Packing List (packing slip) must provide country of origin information for each line item. Each of these line items must have a single country of origin. The two-character ISO 3166 code may be used for this purpose. The column's header containing the country of origin codes should read 'Origin'.

In addition to the above, the Packing List (see section 6) and Case Contents Label (see section 8) requires the full name of the country of origin of all entity items in the case, in English.

In all instances, the country of origin information on any marking or labelling accompanying the TGCS product must be consistent with the country of origin marked on the article, its immediate container, and the invoice. Consistent in this regard does not relate to the wording, but the country that is denoted as the country of origin.

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3 General Label Application Guidelines

a) The surface to which the label will be applied should be smooth, dry, and free of dust, grease, oil and other contaminants before label application. Application of labels onto textured plastic should be avoided and will require testing for long-term adhesion.

b) Labels shall be applied to the part in the areas indicated on prints, reference drawings, etc. in the orientation indicated. If no guidance is given, align the long axis of the label parallel or perpendicular to the long axis of the part, with the printing right side up when the part is installed and/or normally stored. The label should not cover any holes, slots, etc., and be placed on a flat, smooth surface.

c) Do not place labels on surfaces required for heat transfer without prior approval from TGCS. Do not place labels on surfaces that mate with other parts or may cause an interference fit. Do not place labels on electrical contacts or bearing surfaces.

d) Labels should not be applied to surfaces that will experience abrasion in normal handling and use. If this cannot be avoided, bar codes shall be oriented so that any scratches will be along the length of the bar code (i.e. perpendicular to the bars). Protective films (e.g. Mylar) over the label may be used when abrasion is a concern. Bar code scanning through the film should be tested prior to implementation.

e) Labels may be affixed longitudinally to a cable surface. The label design should assure that any bar codes are relatively flat along their length and can be scanned. Labels that are applied directly to the surface of the cable should have the bar code running along the axis of the cable.

f) In general, labels do not need to be applied to a surface that is visible when the part is installed. Part labels, as covered in this guide should not be visible to the end user (customer) when the part is in its normal operating position and covers are closed. If the part is normally consumed into a subassembly, the part's labels should not be visible when the subassembly is assembled; only the label(s) identifying the subassembly should be visible.

g) Labels used for part labeling, if not too small, may also be used for package (container) labeling.

h) Labels on parts and packaging shall be applied neatly with no wrinkles, creases, turned-under corners, obvious stretch or skew, or loose edges.

i) Part and package labels shall be applied consistently from part to part and from lot to lot.

j) Package labels must be aligned with the edges of the package.

k) Barcoded labels shall not be used over lapped seams (other than plastic bags).

l) Excess labels (overruns, test printing, removed from parts, etc.) containing TGCS logos or S/Ns shall be destroyed or otherwise controlled so that they cannot be reused.

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4 Part Labels

This section applies to marking both individual parts and the parts packaging.

4.1 Content & Layout

4.1.1 Part and Part Package Label Data Elements

The following table's data elements defined as 'required' or 'yes' shall appear on the part AND part package labelling for TGCS. See the reference section shown for additional information. Part marking may be via printing, embossing, etching, moulded, etc. on the part, or as separate label permanently affixed to the part. Additional requirements may be specified on the product print or specification.

Generally, barcodes are only required on product packaging, but may be required on parts as well if appropriate. Examples could include barcodes on the part label for serialized parts, or on cables that have no additional packaging. One notable exception to this general rule is for parts that may be consumed within TGCS or Tier 1 fulfilment operations, e.g. feature parts which may be used during late stage customization (CVP). Parts used in that manner must have appropriate barcodes for use within customization

Purchased or Customer ship level parts or assemblies are often called "SMUs" (Shippable Manufacturing Units), and that term is used throughout this guide. It is synonymous for "part" for purposes of this guide.

It is allowable for suppliers to include additional information on the labels that are for their own internal use, if the required elements below are included and there is no confusion. Suppliers shall not include information that may infringe on copyrights, trademarks, or confidential information, e.g. project codename identifiers. Only a single Data Identifier (DI) of each type is allowed on a part. Example: it is not allowed for a supplier to show ("DI") TGCS P/N and ("DI") mfg'ers P/N on the part. Note there is an exception to this rule when labelling serialized MTM products. See section 5.1.1

The following applies to parts and part unit or bulk packaging (bags, boxes, cartons, tubs, crates, reels, etc.) intended for the markings on the part, and unit packaging for shipment of the part from the point of manufacture through TGCS customer fulfilment. It does not address shipping or customer specific (e.g. RPQ) labelling. It does not fully address parts that are packed for solely for Service stock (FRU labelling). The primary differences are that Quantity and a bar coded FRU P/N are mandatory on FRU part package label.

Data Element	Text Requirement	Text Format(1)	Bar Code Required?(2)	Bar Code Data Identifier (DI) (3)	Reference Section
Part Number (P/N)	**Required**	AN7 or AN11	**Yes**	P, 1P or 11S if serialized	4.1.2.1
FRU P/N	**Required** if FRU and different than P/N	AN7 or AN11	**Yes** if FRU package	P, 1P or 11S if serialized	4.1.2.1
Revision Level	Optional(4)	AN6..7	Optional	2P	4.1.2.2
Country of Origin Statement	**Required**	AN12..50	No	n/a	4.1.2.3.1
Country of Origin Code	**Required**	A2	**Yes**	4L	4.1.2.3.2
Quantity	**Required** if FRU package	N1..4	Optional	Q	4.1.2.4
Date of Manufacture	**Required**	yyyy-mm-dd	Optional	12D	4.1.2.5
Part Serial Number	**Required** if serialized part	AN12	**Yes**	11S	4.1.2.6
Expiration Date	**Yes**, if applicable	yyyy-mm-dd	No	n/a	4.1.2.7

Table 3: Part Label Data Elements

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(1) Text Format Column

In the Text Format column, "A" indicates "upper case alphabetic character (A-Z)" and "N" indicates numeric. Numbers following indicate a length. Two numbers separated by two periods indicates a minimum and maximum length. Example 1: AN 6..8 indicates an alphanumeric field with a minimum length of six characters and a maximum length of eight characters. Example 2: A2 means that the field consists of exactly two alphabetic characters.

(2) Bar Code Required Column

Generally, barcodes are only required on product packaging, but may be required on parts as well if appropriate.

(3) Bar Code Identifier DI Column

Bar Code Data Identifier (DI) identifies the data identifier to be used if a bar code is printed. Appendix A lists a subset of the data identifiers used within TGCS

(4) Definition of "OPTIONAL"

The word "OPTIONAL" in the data element tables means "at the discretion of the supplier with agreement from TGCS". TGCS may elect to declare one of these data elements mandatory for a particular product.

4.1.2 Data Element Details

This section describes the detailed data content of each bar code of interest and the title to be used.

Note: The examples shown throughout the Guide are Code 39 symbology, therefore the Start & Stop characters (*) are shown in the encoded data examples, however, the human readable interpretation should NOT include these start/stop characters. Encoded values do not contain spaces, colons, parenthesis, or title. Encoding includes only [Start][DI][Value][Stop].

4.1.2.1 *Part Number and FRU P/N*

4.1.2.1.1 *Text Requirements*

The Part Number (P/N) shall be represented as 7 or 11 alphanumeric characters on all markings or labels. Any leading zeros are significant and must appear. The P/N, in particular the FRU P/N, shall be at least as large as any other text on the label. If possible, it should be set in bold text to highlight it.

Some parts have a FRU P/N that is different than the manufacturing SMU P/N. When this is the case, the FRU P/N shall be clearly identified as such (e.g. preceded by 'FRU PN:') and should be printed in larger/bolder type than the manufacturing "SMU" P/N on product package. **Note: if the SMU part number and FRU part number are the same, use "(P) FRU…" format for the title.**

4.1.2.1.2 *(P) Part Number Bar Code*

Barcodes are required on all product packaging, and on the physical part if the part is used in TGCS or Tier 1 fulfillment operations.

This format is to be used for a P/N bar code unless otherwise directed. Leading zeros are significant and must be shown in the HR and encoded.
Data Identifier: P (preferred) or 1P (not preferred, and not allowed for newly released parts)
Value after identifier: 7-character legacy TGCS P/N or 11 character TGCS P/N
Title: (P) TGCS P/N: 3AAppppppp, (P) FRU: ppppppp or (P) FRU P/N: 3ACpppppppp
examples: (P) TGCS P/N: 08J6040, (P) FRU P/N: 3AC00538400
Example of encoded data: *P08J6040*, *P3AC00538400* (note "P" DI is included in the encoded data)

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Example bar codes:

(P) TGCS P/N: **08J6040**

(P) FRU P/N: **3AC00538400**

Note the HR P/N is slightly larger and bolder than the other text. This is the preferred form.
Note the Code 39 Start / Stop characters (*) are not printed in the HR.

4.1.2.2 *Revision Number*

4.1.2.2.1 *Text Requirements*

The TGCS Revision number (or legacy engineering change number) is not required if the supplier has alternate means of identifying and tracing the part build and revision level – e.g. date of manufacture, serial number, sequence number, etc. If present, the Rev shall be represented as 6 or 7 characters. The 7th, rightmost character is called the 'suffix' and is only occasionally used for legacy parts, however label layouts should be designed to accommodate the suffix. The Rev number shall represent the TGCS Agile revision number associated with the manufacturing part number.

4.1.2.2.2 *(2P) Revision Bar Code (Optional)*

Data Identifier: 2P
Value after identifier: 6 or 7 character TGCS REV Number or legacy EC number
Title: (2P) REV: REVnnn, or (2P) EC: eeeeeex or (2P) REV: eeeeeex
Example of encoded data: *2PREV002* or *2PC12013B* (with legacy suffix).
Note: If no suffix is present, no blank is to be encoded.
Example bar codes:

(2P) REV: REV002

(2P) REV: C12013

(2P) EC: C12013B

4.1.2.3 *Country of Origin*

4.1.2.3.1 *Text Requirements*

All TGCS parts may be subject to import, export, and reimport over the lifetime of the part. TGCS requires that all items and their immediate containers (innermost packaging) be clearly marked with the English name of the country of origin (CoO) as legibly and permanently as the nature of the article will allow. See section 2 or 3ADMECH1001 for further discussion of CoO requirements.

Part CoO Marking Requirements:

a) All products produced, procured, or repaired by or for TGCS, including finished products, Field Replaceable Units (FRUs), Customer Replaceable Units (CRUs), sub-assemblies, parts, media recorded with software, manuals, accessories, and supply items must be marked with the appropriate country of origin.

b) In most cases, the 'immediate container' is the box in which the part is packed. The country of origin on the immediate container must match the country of origin on the part. The country of origin should be placed near the P/N.

c) The country of origin mark shall be permanently applied to the goods as well as the packaging except in cases where the nature of the article precludes marking due to their composition or size, e.g. chip resistors or capacitors.

d) The text and placement of the country of origin on the part shall be conspicuous (capable of being easily seen with normal handling of the article or container) and legible (can be easily read by a

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Customs Inspector with normal eyesight). It shall be placed near the P/N and in text at least 1.5 mm high and preferably at least 4 mm (11 point) high.

e) The mark must include the full name of the country of origin in English. Examples:
Made in Indonesia, Recorded in Hungary, Printed in China, Produced in the US of US and non-US components, etc.

f) The only acceptable abbreviations are UK the United Kingdom and US or USA for United States of America.

g) **The "4L ORIGIN:" data element on the part or package label is NOT acceptable as the sole statement of country of origin**.

h) If the country of origin is the United States (Made In…, or 4L country code=US), then the following wording MUST be used;
"Produced in the US of US and non-US components"

4.1.2.3.2 *(4L) County of Origin Bar Code*

The Country of Origin barcode is required for all product packaging labels, or on the part label if there is no packaging (e.g. power cords). **Every part requires a (4L) barcode on either the part or the package.**
Data Identifier: 4L
Value after identifier: 2-character ISO-3166 country code (see Appendix E for common code reference)
Title: (4L) ORIGIN: xx
Example of encoded data: *4LCN* (CN is The People's Republic of China)
Example bar code:

(4L) ORIGIN: CN

4.1.2.4 *Quantity*

4.1.2.4.1 *Text Requirement*

Quantity is required on the packaging if the part is a FRU. In some cases, the FRU and SMU are the same P/N, and therefore quantity must be on the package label for the SMU/FRU. Quantity must be shown with no leading zeros. The thousands separator shall be a blank, not a comma or period.

4.1.2.4.2 *(Q) Bar Code (Optional)*

Data Identifier: Q
Value after identifier: Numeric Qty in package,
Title: (Q) Quantity: nnnn or (Q) Qty: nnnn
Example of encoded data: *Q5*
Example bar code:

(Q) QTY: 5

4.1.2.5 *Date of Manufacture*

4.1.2.5.1 *Text Requirement*

Date of Manufacture is not required to be barcoded, but can be if the supplier chooses. The date of manufacture must be shown as a separate human readable element, even if encoded in a part serial number. If part is serialized (see 4.1.2.6), the HR date of manufacture must agree with the 11S S/N date. It is not required that the human readable date of manufacture be preceded by any type of title (e.g. DOM, Date of Mfg, Date of Manufacture, MFG Date, etc.). The date of manufacture should be in the ISO date format of yyyy-mm-dd, e.g. 2016-10-31. For products predating the release of this guide, other generally accepted

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industry formats, (e.g. yyww or ymm), may be used with prior TGCS approval, or as specified on a part print or other specification.

If a second date is shown on the label or part, it must be preceded by a descriptive title. An example would be if an expiration date is shown, this date must be preceded by 'EXP' or similar.

4.1.2.5.2 *(12D) Bar Code (Optional)*

Data Identifier: 12D
Value after identifier: Date of Mfg in ISO yyyy-mm-dd format
Title: (12D) yyyy-mm-dd, (12D) Date: yyyy-mm-dd or (12D) Date of Mfg: yyyy-mm-dd
Example of encoded data: *12D20161231* (**Note:** separators are NOT encoded**)**
Example bar codes

(12D) 2016-12-31 (12D) Date of Mfg: 2016-12-31

4.1.2.6 ***Part Serial Number***

4.1.2.6.1 *Text Requirements*

NOTE: This section defines requirements for a part "11S" serial number – NOT the "1S" Machine Type/Model (MTM) Serial Number. See section 0 for MTM label requirements.

Each major part commodity (e.g. storage media, memory modules, power supplies, PCBAs, touch sensors, etc.) requires a unique "11S" Part S/N label. If in doubt if a part type needs a serialized 11S label, please confirm with TGCS ME/QE. The label content and layout information are defined in this section, as well as the requirement to verify the label readability.

If required, the 11S barcode includes both P/N and S/N encoded in a single character string. The rightmost 12 characters in the TGCS 11S number are considered the part S/N. TGCS's serial tracking systems are optimized for use of this 11S bar code and separate P/N and S/N bar codes are strongly discouraged, and not allowed on newly released parts.

Each commodity must have a unique serial number. The supplier must ensure there are traceability links within their shop floor control systems to capture relevant manufacturing characteristics and content of the part or assembly, and link those to the assigned TGCS 11S S/N. Examples include lot or dates codes of critical parts, component serial numbers, component revision, etc.

The supplier shall have a documented identification and 11S bar-code label management and control system that ensures each key commodity, is uniquely identified with an 11S label that contains both bar-coded and human readable information. The supplier's label methodology, in conjunction with their floor control system, shall ensure that new production parts are not mixed with non-new production parts.

The supplier shall have a documented bar-code scanning management and control system, which ensures verification of the bar-code label placed on each affected TGCS part. Verification requires checking every label to ensure that it is scannable and that the content match the product and correct EC level.

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4.1.2.6.2 *TGCS 11S P/N Barcode Content and Format (11 character)*

Fixed DI			11 Character TGCS Part Number										ID	Loc. & Type		EC	Vendor Code		Serial Number					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	1	S	3	A	P	P	P	P	P	P	P	P	P	Y	K	1	E	V	V	Y	M	D	N	N	N

Table 4 11S Barcode Format, TGCS P/Ns

a) Positions 1-3 (11S), and 15-16 (YK) are fixed values.
b) Positions 4-14 = the TGCS P/N, beginning "3A…"
c) Position 17 is Part Class - typically the only allowed value is (1), New Part.
d) Position 18 (Note 1) = the Rev (EC) level.
e) Positions 19 & 20 = the supplier code provided by Procurement. See 3ADLABEL002.
f) Position 21 = the current year date code (see "**Y**" below).
g) Position 22 = the current month code (see "**M**" below).
h) Position 23 = the current day of month code (see "**D**" below).
i) Position 24-26 = incremental sequence number, 1-999th piece that day, if more than 999, use Ann-ZZZ(Note 2).

4.1.2.6.3 *Legacy 11S P/N Barcode Content and Format (7 character)*

Fixed DI			7 Character TGCS Part Number							ID	Location & Type		EC	Vendor Code		Serial Number					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	1	S	P	P	P	P	P	P	P	Y	K	1	E	V	V	Y	M	D	N	N	N

Table 511S Barcode Format, legacy P/Ns

a) Positions 1-3 (11S), and 11-12 (YK) are fixed values.
b) Positions 4-10 = the TGCS legacy (7 character) P/N.
c) Position 13 is Part Class - typically the only allowed value is (1), New Part.
d) Position 14 (Note 1) = the Rev (EC) level.
e) Positions 15 & 16 = supplier code provided by Procurement. See 3ADLABEL002.
f) Position 17 = current year date code (see "**Y**" below).
g) Position 18 = current month code (see "**M**" below).
h) Position 19 = current day of month code (see "**D**" below).
i) Position 20-22 = incremental sequence number,1-999th piece that day, if more than 999, use Ann-ZZZ(Note 2).

Y = Last digit of current year (e.g. 2018 = "8")

M = Month Code

Month	Code	Month	Code	Month	Code	Month	Code
Jan	1	Apr	4	Jul	7	Oct	A
Feb	2	May	5	Aug	8	Nov	B
Mar	3	Jun	6	Sep	9	Dec	C

D = Day of Month Code (Note 2)

Day	Code	Day	Code	Day	Code	Day	Code	Day	Code	Day	Code
1	1	6	6	11	B	16	G	21	M	26	T
2	2	7	7	12	C	17	H	22	N	27	V
3	3	8	8	13	D	18	J	23	P	28	W
4	4	9	9	14	E	19	K	24	R	29	X
5	5	10	A	15	F	20	L	25	S	30	Y
										31	Z

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Note 1: Position 14/18 REV or EC (one character) – Supplier must assign and track the Revision or EC level code (0-9, A-Z [Note 2]) aligning to their specific change number implementation. TGCS must be notified prior to Rev/EC changes.
Note 2: I, O, Q, & U are not used

4.1.2.6.4 *11S Bar Code*

Data Identifier: 11S
Value after identifier: ppppppsssssssssssss (**7-character legacy** P/N, 12-character part S/N) -
-OR-
Value after identifier: pppppppppppsssssssssssss (**11-character P/N**, 12-character part S/N)
Title: (11S) TGCS P/N SN: pppppp ssssssssssss
Place one or more spaces between the P/N and part S/N in the title
Do not imbed blanks or other separators in the serial number
Alternate title: (11S) TGCS PN: pppppp SN: ssssssssssss
Example of encoded data: *11S08L1020YL1009234123* (22 data characters) or *11S3AA00758000YL1009234123* (26 data characters). Do not encode spaces.

The P/N in the title should be set in slightly larger or bolder type than the S/N to call attention to the P/N, particularly if the 11S title is the only indicator of the P/N on the part.

The long length of this bar code (22 or 26 characters plus the start/stop indicators) means special care should be to assure that the height is at least 15% of the length.

4.1.2.7 *Expiration Date*

Certain parts may have an expiration or recharge date, e.g. batteries or parts that have specific shelf life. If shown, the title should be "Expires", 'EXP', "Discard After", or similar wording. Products or batteries requiring recharge should carry the label described in Appendix C, *Rechargeable Batteries Labelling Instruction* on page 102.

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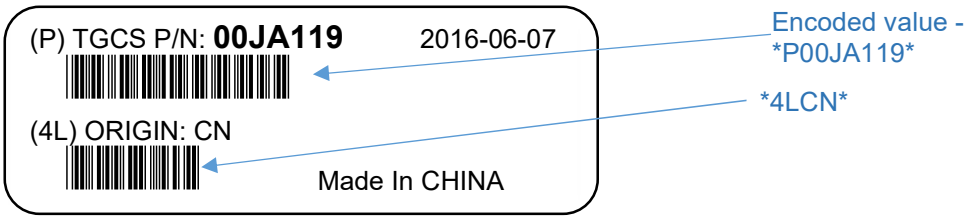
4.2 Example Part Packaging Labels

Note that these examples contain only the TGCS required and optional elements. Unless otherwise noted, examples in this section would be suitable for part packaging labels. Labels or markings used on the part itself are to be created and approved during the design and contract stages of product development or procurement. The suppliers may add additional elements to carton labels as required for internal purposes, if those cannot be confused with any of the required TGCS elements or data identifiers (see appendix A). For example – the supplier could not use their mfg'ers P/N with a "P" or "P/N" prefix, as those could be confused with the TGCS part number.

4.2.1 Non-Serialized Parts

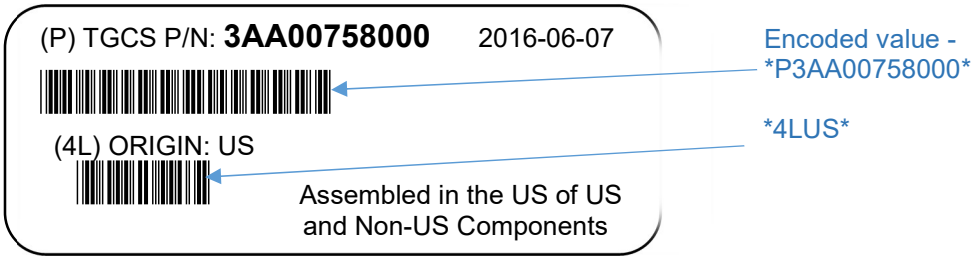
4.2.1.1 *SMU part, not a FRU*



This example shows the minimum HR and barcoded data elements. Note the larger bold type of the P/N.

Note: Code 3 of 9 Start / Stop characters (*) are encoded, but not printed in the HR.

4.2.1.2 *SMU part, not a FRU, Assembled in US*



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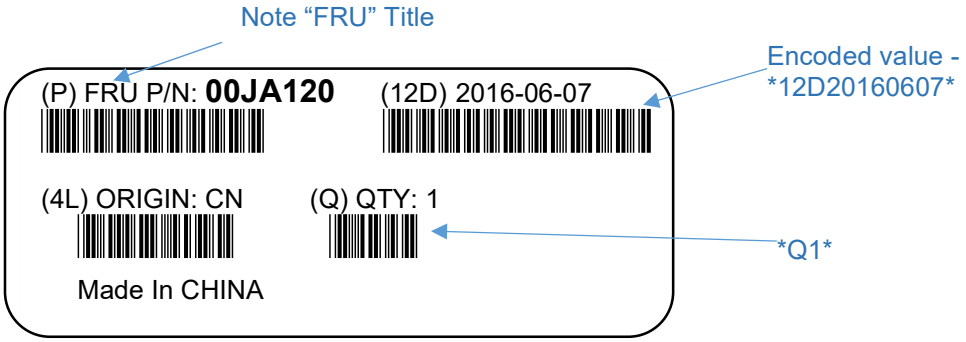
4.2.1.3 *SMU/FRU Same P/N, optional Date barcode*



Note: if FRU and SMU are same P/N, use the "FRU" title

4.2.1.4 *SMU, Multiple Qty Bulk Pack*

4.2.1.5 *SMU and different FRU P/N*

Note the larger bold type of the FRU P/N & Qty

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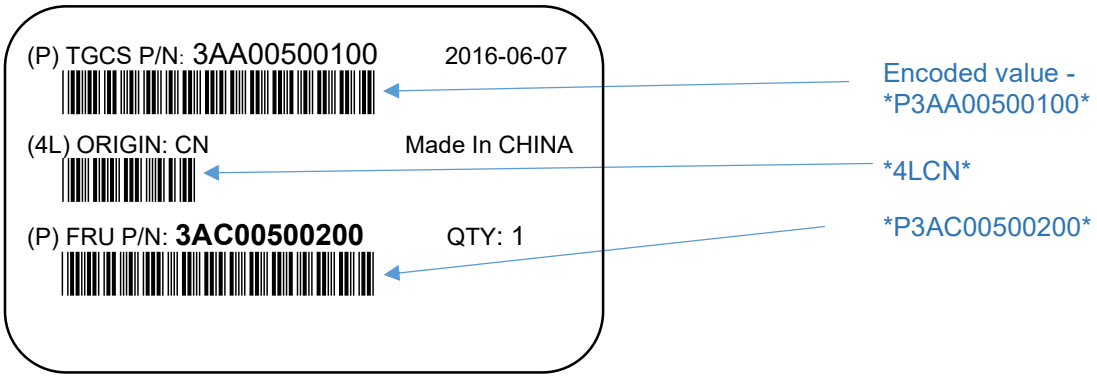
4.2.1.6 *SMU and different FRU P/N*



Note the larger bold type of the FRU P/N & Qty

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4.2.2 Serialized Parts

4.2.2.1 *Serialized Part, not a FRU*

(11S) TGCS P/N S/N: **3AA12345678** YK1AZZ66G001

(4L) ORIGIN: CN 2016-06-16

Made In CHINA

Encoded value -
11S3AA123456778YK1AZZ66G001

4.2.2.2 *Serialized Part, physical part label*

This is an example for a T1 supplier added part label, with the minimum required elements.

(11S) P/N S/N:00GU313YK11RL812076

FRU P/N : **00GU312** 2018-01-02

Made In CHINA

4.2.2.3 *Serialized SMU and different P/N FRU*

(11S) TGCS P/N S/N: 3AA12345678 YK1AZZ66G001

(4L) ORIGIN: CN 2016-06-16

Made In CHINA

(P) FRU P/N: **3AC87654321** QTY: 1

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4.2.2.4 *Serialized FRU and SMU, with 7-digit FRU P/N*

(11S) TGCS P/N S/N: 3AA12345678 YK1AZZ66Z001

(4L) ORIGIN: CN 2016-06-16

MADE IN CHINA

(P) FRU P/N: **3AC12345678** QTY: 1

4.2.2.5 *Serialized SMU, different P/N FRU, Rev Level, Qty barcode, and 7-digit FRU P/N.*

(11S) TGCS P/N S/N: 3AA12345678 YK1AZZ66G001

(2P) REV: A12345 2016-06-16

Encoded value - *2PA12345*

(4L) ORIGIN: CN

Made In CHINA

(P) FRU P/N: **3AC87654321** (Q) QTY: 1

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5 Serialized "MTM" Product Labels

This section defines requirements for Product Serialized Machine Type / Model (MTM) carton labels when the MTM is considered a "Part" shipping from a supplier (tier 2) to a TGCS fulfillment center (tier 1). These requirements differ from the "Product" shipping from a TGCS fulfillment center to a TGCS customer. Requirements for the machine itself are defined in corporate specifications (see appendix D).

5.1 Content & Layout

5.1.1 Serialized MTM Carton Label Data Elements

a) The following tables data elements defined as 'required' or 'yes' shall appear on the TGCS MTM carton label.

b) Additional requirements may be specified on the product print or specification.

c) Serialized Product Labels have three sections – MTM, P/N, and General. Data elements may be common to more than one label section. It is helpful to see examples in section 5.2.

d) **Note:** to maintain consistency with current legacy tier 2 MTM supplier practices;
1) the HR representation of encoded data may be printed UNDER the barcode on MTM labels. This differs from "Part" labels shown in section 4. This not the preferred format.
2) It is allowable to print the stop/stop characters in the HR under the barcode. This not the preferred format.

Note: The preferred format for new suppliers and products is to follow the general rules, i.e. HR is above the barcode, and no HR start/stop characters.

Sections 5.1.2.1 through 5.1.2.4 are shown in both the legacy and preferred formats.

e) It is allowable for suppliers to include additional information on the labels that are for their own internal use, as long as the required elements below are included and there is no risk of confusion.

f) The following applies to serialized MTM unit or bulk packaging from the point of manufacture (tier 2 or higher) through TGCS customer fulfilment (tier 1). It does not address shipping or customer specific (e.g. RPQ) labelling, nor does it fully address parts that are packed for solely for Service stock (FRU labelling).

g) Note these are the minimum required elements. Depending on the type of product, additional elements may be required. Examples include country certification labels, recycling symbols, pointers to website, etc.

h) Initial release and changes to MTM carton labels must be approved by the responsible TGCS Manufacturing and Fulfilment Engineering staff prior to implementation.

i) HR data should be slightly larger and bolder than the other text (e.g. titles) on the labels. This is the preferred form.

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Label Section	Supplier Tier(1)	Data Element	Text Requirement	Text Format(2)	Bar Code Required?	Bar Code Data Identifier (3)	Reference Section
MTM	T1/T2	ID NO. – MT-Model, S/N	**Required**	AN14	**Yes**	1S	5.1.2.1
MTM	T1/T2	P/N	**Required**	AN11 or AN7	**Yes**	P	5.1.2.2
P/N	T1/T2	Line 1- ID NO. – MT and S/N	**Required**	AN15 or AN11	No	n/a	5.1.2.3
PN	T1/T2	Line 2 - P/N & opt. S/N	**Required**	AN25 or AN21	**Yes**	1S	5.1.2.3
General	T1/T2	Country of Origin Statement	**Required**	AN12..50	No	n/a	4.1.2.3.1
General	T1/T2	Country of Origin Code	**Required**	A2	**Yes**	4L	4.1.2.3
General	T1/T2	MAC ID	**Required if assigned**	H12 + separators:	**Yes**	23S Optional	5.1.2.4
General	T1/T2	Date of Manufacture	**Required**	yyyy-mm-dd	**Yes**	12D Optional	4.1.2.5
General	T1/T2	EC Level	Optional(4)	AN6,7	Optional	2P Optional	4.1.2.7
General	**T1 Only**	COA S/N	**Required if OS preload**	N14	**Yes**	n/a	5.1.2.5
General	**T1 Only**	COA P/N	**Required if OS preload**	AN11 or AN7	**Yes**	n/a	5.1.2.6
General	**T1 Only**	CVP Job #	**Required if customized**	N6	No	n/a	5.1.2.7
General	**T1 Only**	CVP Test Rev	**Required if customized**	Nnn-nnn	No	n/a	5.1.2.8
General	T1/T2	BIOS Rev	**Required if customized**	AN7 aaaannn	No	n/a	5.1.2.9
General	**T1 Only**	Preload P/N	**Required if OS preload**	AN12 or AN8	**Yes**	n/a	5.1.2.10
General	**T1 Only**	Customized Date	**Required if customized**	yyyy-mm-dd	No	n/a	5.1.2.11

Table 6: Serialized MTM Product Carton Label Data Elements

(1) Supplier Tier Column

Supplier tier (T) is either T2 for OEM/ODM manufacturers, or T1 for late stage customization/TGCS customer fulfillment suppliers.

(2) Text Format Column

In the Format column, "A" indicates upper case alphabetic character (A-Z)", "N" indicates numeric (0-9), and H indicates hexadecimal (0-F). Digits following indicate a length. Two digits separated by two periods indicates a minimum and maximum length.

Example 1: AN 6..8 indicates an alphanumeric field with a minimum length of six characters and a maximum length of eight characters. Example 2: AN14 means that the field consists of exactly 14 alphanumeric characters.

(3) Bar Code Identifier DI Column

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Bar Code Data Identifier (DI) identifies the data identifier to be used if a bar code is printed. Appendix A lists a subset of the data identifiers used within TGCS.

(4) Definition of "OPTIONAL"

The word "OPTIONAL" in the data element tables means at the discretion of the supplier with agreement from the TGCS ME and product fulfillment team. TGCS may elect to declare one of these data elements mandatory for a particular product.

5.1.2 Data Element Details

This section describes the detailed data content of each bar code of interest and the title to be used. It may be helpful to reference the examples in section 5.2 on page 35.

5.1.2.1 *MTM Section ID No.*

5.1.2.1.1 *Text Requirements*

The MTM section ID No includes the Machine Type (t), Model (m), and Serial Number (s). Any leading zeros are significant and must appear. The serial number will always have a "41" prefix followed by the 5-character variable serial number unique to that machine. The MTM shall be at least as large as any other text on the label. If possible, it should be set in bold text if the same size as other text to highlight it. The Machine Type and Model will be separated by a hyphen, i.e. tttt-mmm.

5.1.2.1.2 *1S ID NO MTM & S/N Bar Code*

This format is to be used for a MTM bar code unless otherwise directed. Leading zeros are significant and must be encoded.
Data Identifier: 1S
Value after identifier: 4-character MT (t),hyphen(-), 3-character Mod (m), 7-character S/N (41+s)
Legacy Title: ID NO tttt-mmm 41sssss
Example: ID NO 4900 785 41123AB
Preferred Title (1S) ID NO: tttt-mmm 41sssss
Example (1S) ID NO: 4900 785 41123AB
Example of encoded data: *1S490078541123AB* (note "1S" DI is included in the encoded data). The encoded data is the same for both legacy and preferred formats.
Examples:

ID NO **4900-785 41123AB**
1S490078541123AB
Legacy

(1S) ID NO: **4900-785 41123AB**
Preferred

5.1.2.2 *MTM Section P/N*

5.1.2.2.1 *Text Requirements*

The MTM section P/Nincludes the part number represented as 7 or 11 alphanumeric characters. Any leading zeros are significant and must appear. The P/N shall be at least as large as any other text on the label. If possible, it should be set in bold text if the same size as other text to highlight it.

5.1.2.2.2 *(P) Part Number Bar Code*

This format is to be used for a MTM Section P/N bar code unless otherwise directed.
Leading zeros are significant and must be encoded.

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Data Identifier: P (preferred) or 1P (not preferred, and not allowed for newly released parts)
Value after identifier: 7-character legacy TGCS P/N or 11-character TGCS P/N
Legacy Title: PART NO: pppppppppp or PART NO: ppppppp
example: PART NO 3AA00815200
Preferred Title: (P) P/N pppppppppp or (P) P/N: ppppppp
example: (P) P/N: 3AA00815200
Example of encoded data: *P3AA00815200* (note "P" DI is included in the encoded data)
Examples:

PART NO.: **3AA00815200**
P3AA00815200

Legacy

(P) P/N **3AA00815200**

Preferred

5.1.2.3 *P/N Section*

5.1.2.3.1 *Text Requirements*

The P/N section includes two lines. Line 1 is the Machine Type and Serial Number, line 2 the P/N and S/N. Only line 2 is encoded. Any leading zeros are significant and must appear. The serial number will always have a "41" prefix followed by the 5-character variable serial number unique to that machine. The text shall be at least as large as any other text on the label. If possible, it should be set in bold text if the same size as other text to highlight it.

5.1.2.3.2 *P/N & S/N Bar Code*

This format is to be used for a P/N Section MT and S/N (line1) HR, and P/N S/N (line2) unless otherwise directed. Line 1 is HR only. Line 2 is HR and barcode. Leading zeros are significant and must be encoded.
Data Identifier: 1S (line 2 only)
Value after identifier: 7-character legacy TGCS P/N (p) or 11-character TGCS P/N (p), and 7-character S/N (s)
Legacy Format Titles:
Line 1 - ID NO tttt 41sssss:
Line 1 example: ID NO 4900 41123AB
Line 2 – PART NO pppppppppp **or** PART NO pppppppppp 41sssss, either is acceptable
Line 2 example: PART NO 3AA00815200 **or** PART NO: 3AA00815200 41123AB

Examples of Line 2 encoded data:
1S3AA0081520041123AB (note "1S" DI is included in the encoded data)

Preferred Format Titles:
Line 1 - ID NO: tttt 41sssss
Line 1 example: ID NO: 4900 41123AB
Line 2 – (1S) P/N: pppppppppp **or** (1S) P/N: pppppppppp 41sssss, either is acceptable
Line 2 example: (1S) PART NO: 3AA00815200 **or** (1S) PART NO: 3AA00815200 41123AB
Examples of Line 2 encoded data:
1S3AA0081520041123AB (note "1S" DI is included in the encoded data)

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Example Barcode:

ID NO **4900 41123AB**
PART NO **3AA00815200 41123AB**
1S3AA0081520041123AB

Legacy

ID NO: **4900 41123AB**
(1S) P/N: **3AA00815200 41123AB**

Preferred

5.1.2.4 *MAC ID*

5.1.2.4.1 *Text Requirements*

The MAC shows the primary 12-character hexadecimal MAC address uniquely assigned to that machine. Any leading zeros are significant and must appear. The HR portion will use the common form of six groups of two hexadecimal digits separated by colons. The colons should not be encoded in the barcode.

5.1.2.4.2 *MAC Bar Code*

Leading zeros are significant and must be encoded.
Data Identifier: Optional 23S. Typically the DI for MAC is not required or encoded.
Value after identifier: 12-character hexadecimal MAC address
Titles: MAC ID:
example: MAC ID: 12:34:56:78:90:AB
Example of encoded data: *1234567890AB* Note 23S DI is not required, and colon separators are **not** encoded.
Example barcode: Note the colons in the HR – these should **not** be encoded. The legacy format barcode may be below or beside the title to align with current practice. Either format is acceptable.

MAC ID
12:34:56:78:90:AB

Legacy

MAC ID
12:34:5:78:90:AB

Alternate Legacy

MAC ID: 12:34:56:78:90:AB

Preferred

5.1.2.5 *COA Serial Number (T1 only)*

5.1.2.5.1 *Text Requirements*

The COA S/N shows the unique license serial number for a third party (e.g. Microsoft) operating system software preload assigned to that machine. Any leading zeros are significant and must appear. The value originates from the COA label.

5.1.2.5.2 *COA Serial Number Barcode*

Leading zeros are significant and must be encoded.
Data Identifier: None
Value after identifier: 14-digit numeric S/N scanned from COA label
Title: COA S/N:
Example: COA S/N: 02219004260675

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Example of encoded data: *02219004260675* (note no DI)
Example barcode

COA S/N: 02219004260675

5.1.2.6 *COA Part Number (T1 only)*

5.1.2.6.1 *Text Requirements*

The COA P/N shall be represented as 7 or 11 alphanumeric characters. Any leading zeros are significant and must appear.

5.1.2.6.2 *COA Part Number Bar Code*

Leading zeros are significant and must be encoded.
Data Identifier: None
Value after identifier: 7-character legacy TGCS P/N or 11-character TGCS P/N
Title: COA P/N:
example: COA P/N: **68Y6555**
Example of encoded data: *68Y6555* (note no DI)
Example barcode:

COA P/N: 68Y6555

5.1.2.7 *CVP Job Number (T1 only)*

5.1.2.7.1 *Text Requirements*

The CVP Job number is a 6-digit number used to identify the customization/rework activity at the T1 FFC suppliers. Any leading zeros are significant and must appear.
Example: 103772

5.1.2.8 *CVP Test Revision (T1 only)*

5.1.2.8.1 *Text Requirements*

The CVP Test Revision is the version number of the CVP application used for that customization job at the T1 FFC supplier. Any leading zeros are significant and must appear. The format for the CVP Test Rev Number is 2 groups of 3 digits separated by a hyphen,
Example: *CVP Test Rev: 299-452*

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5.1.2.9 *BIOS Version (Required at T1, optional for T2)*

5.1.2.9.1 *Text Requirements*

The machine BIOS Version is version loaded or verified by the CVP process. The format for the BIOS Version is four alpha characters followed by three numeric.
Example: BIOS Rev: XAKT140

5.1.2.10 *Preload Part Number (T1 only)*

5.1.2.10.1 *Text Requirements*

If preload is present, the Preload Part Number if shall be represented as 8 or 12 alphanumeric characters. Any leading zeros are significant and must appear.

5.1.2.10.2 *Preload Part Number Bar Code*

Leading zeros are significant and must be encoded.
Data Identifier: None
Value after identifier: 7-character legacy TGCS P/N or 11-character TGCS P/N, plus a 1-character revision level
Title: Preload:
example: Preload: **00V0255B**
Example of encoded data: *00V0255B* (note no DI)
Example bar code:

Preload: 00V0255B

Preload: 00V0255B

Preferred

Note the Legacy HR P/N is below the barcode. This is to align with current practice. The preferred method is to have HR above the barcode.

5.1.2.11 *Date of Manufacture (both) and Customized Date (T1 only)*

5.1.2.11.1 *Text Requirements*

Both the OEM and T1customization date must be shown on the customization label. The OEM date originates from the label place by the machine T2 manufacturer. It is recreated for the customization label to ensure the original date of manufacture is retained. The Customization date is the date the machine was processed through CVP at the T1 FFC supplier. Dates should be in the ISO format, yyyy-mm-dd.
Example:

Date of Manufacture:
2016-11-13

Customization Date:
2017-01-25

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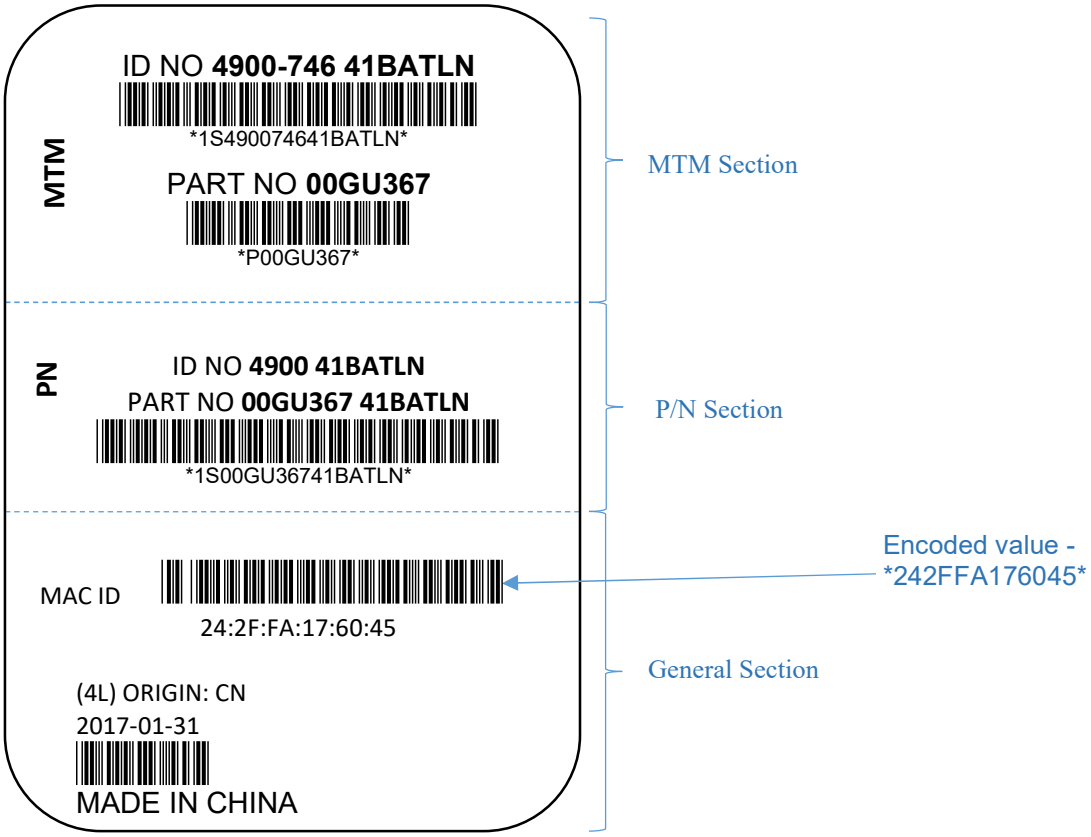
5.2 Example MTM Labels

Note: These are only illustrative examples showing the minimum required elements. TGCS or the supplier may require additional elements to comply with manufacturing or regulatory requirements. Suppliers may add additional elements as necessary for internal purposes, if those cannot be confused with any of the required TGCS elements or data identifiers (see appendix A). These additional required elements would be shown in the "General" section of the label. The order of the MTM and P/N sections is not significant, but the General section must be at the bottom of the label.

The T1 FFC applied carton label shown in section 5.2.4 design is based on current practice to minimize impact to T1 suppliers.

5.2.1 T2 Legacy format MTM Carton Label



Note the DI below the barcode to align with current practice. This is not preferred. Suppliers should move to the preferred ANSI/ISO format.

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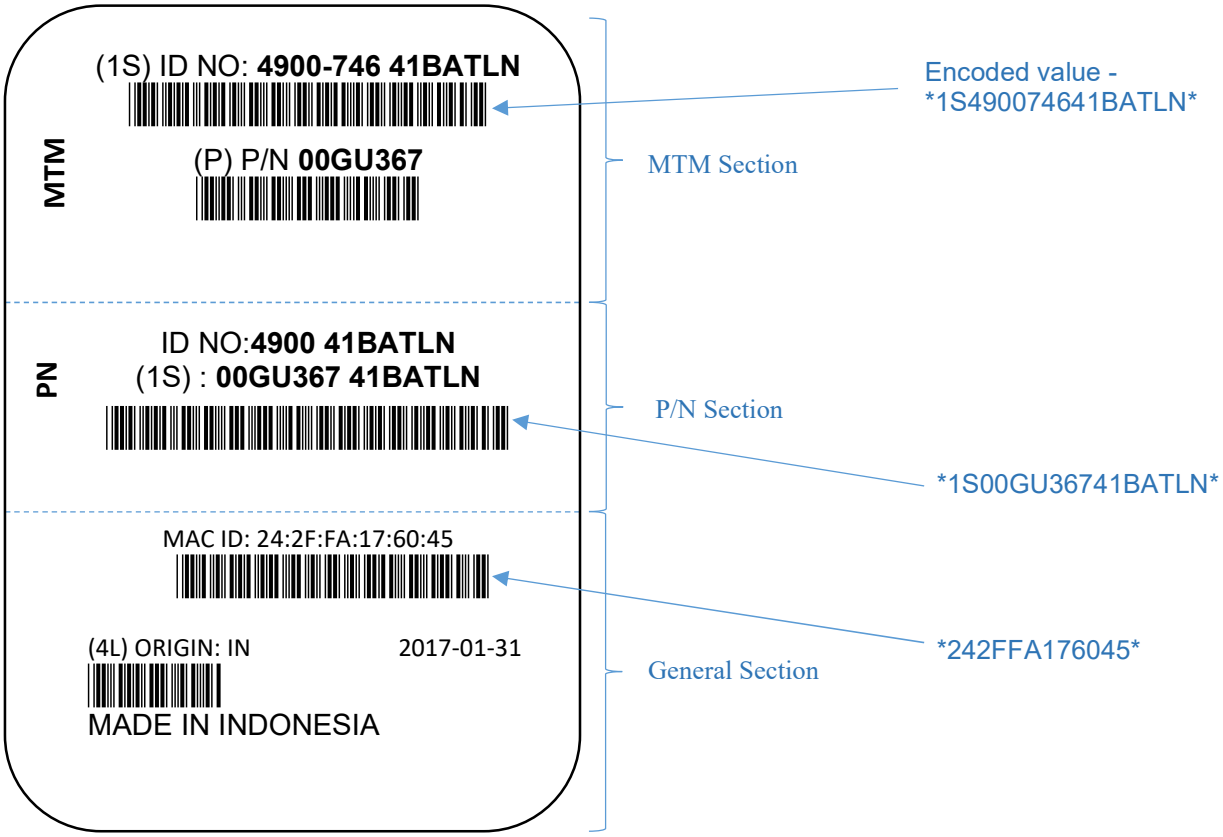
5.2.2 T2 Preferred format MTM Carton Label



Note the DI and HR is above the barcode to align with the preferred ANSI/ISO format.

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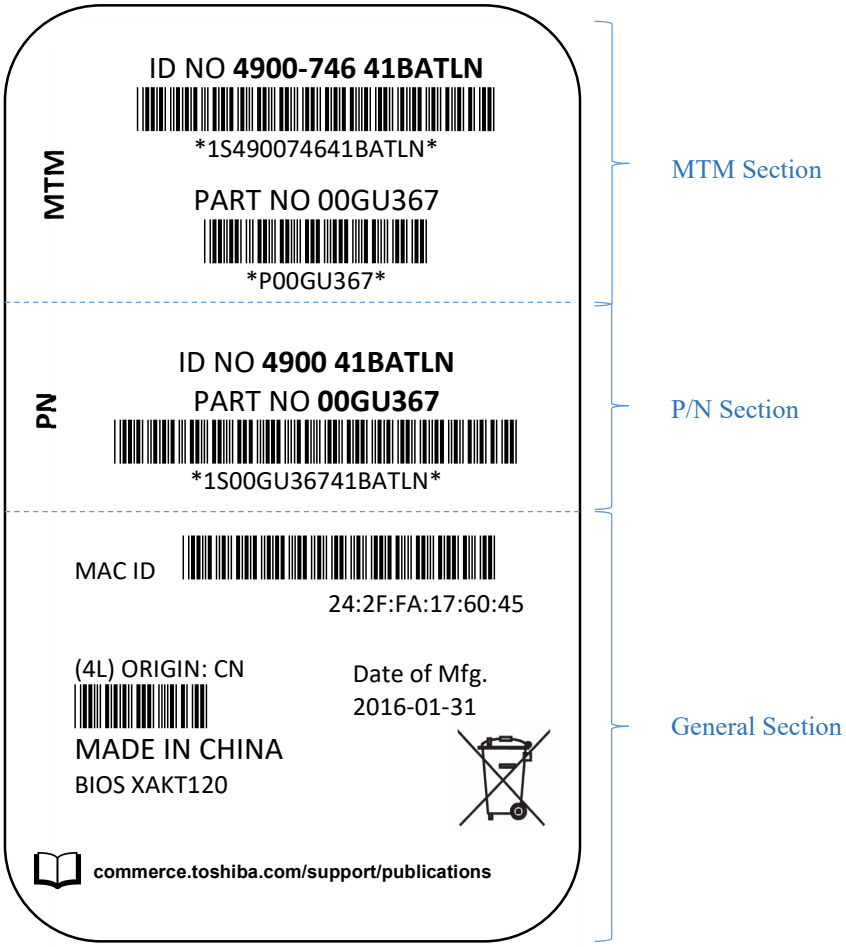
5.2.3 T2 Legacy MTM Carton Label with additional elements



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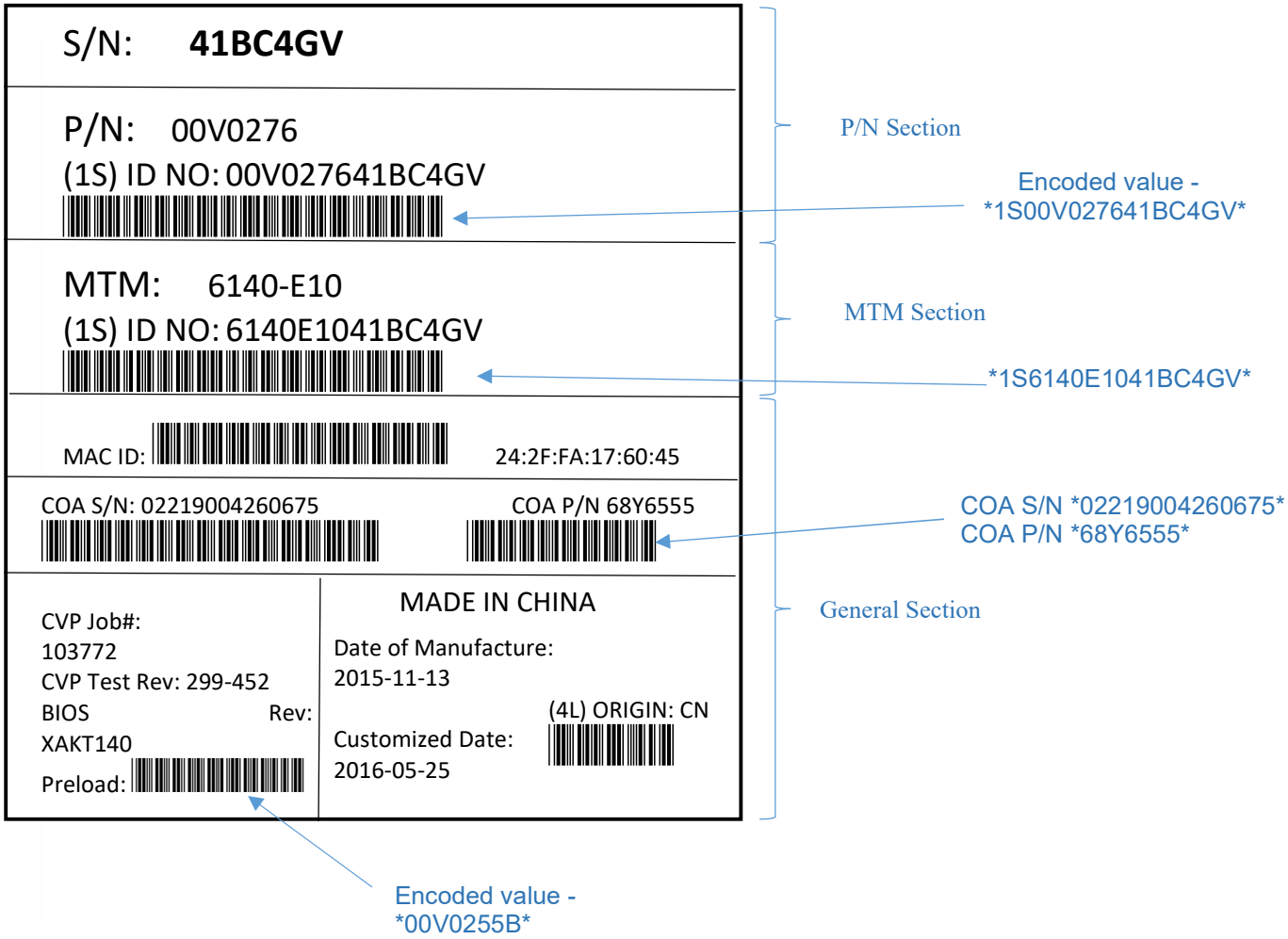
5.2.4 Post Customization T1 applied Carton Label



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6 Packing List

A ***Packing List*** is a document that includes product and order related information specific to a particular entity, i.e. a package, handling unit, or transport unit, and includes itemized content of the package. The packing list provides a hardcopy record of the goods that were packed and shipped against a sales order. Users of the packing list include transport agencies, government authorities (e.g. Customs), and customers. The customer will get a single packing list with every shipment, which can be used to match the goods shipped to the goods received at their location

NOTE: A shipment must only contain a single packing list. Copies of prior packing lists, commercial invoices or other declarations must be removed prior to shipment. An example of this would be a tier 2 suppliers packing list (from T2 into T1) which must be removed prior to shipment from a T1 fulfillment center to a customer.

As indicated by the name 'Packing List', it summarizes all items that have been physically packed together into one handling unit (case, container, overpack box, pallet etc.). Every MTM order must have a packing list affixed to the carton or overpack containing the serialized MTM.

While not technically a "label", a packing list is applied to each order shipping to TGCS customers, so its requirements are appropriate to be included in the Guide.

6.1.1 Minimum Required Content for T2 (Inbound to TGCS) Packing Lists

Each shipment incoming to TGCS or TGCS T1 suppliers requires a Packing List be affixed to the shipment. TGCS does not attempt to define the specific format for supplier packing lists but does require certain typical commercial information be included. See Table 7 T2 Packing List Elements

T2 Required Packing List Data Elements	Text Requirement
Date	**Required**
Page Count	**Required if multiple pages**
Supplier Order Number	**Required**
TGCS PO Number	**Required**
Supplier P/N (& revision if applicable)	**Required**
TGCS P/N & (revision if applicable)	**Required**
Qty Ordered	**Required**
Qty Shipped	**Required if partial**
Description	**Required**

Table 7 T2 Packing List Elements

6.1.2 General Rules for T1 Packing Lists

a) Every serialized MTM order or MES for shipment to a TGCS customer must have a Packing List. The Packing List label is applied to the outermost carton of the order, i.e. overpack if so packed, or on each serialized MTM carton if no overpack is used, or other handling unit if not an MTM order.

b) A Packing List must contain at minimum the data elements that are specified as 'Required' in section 6.2.1.

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c) The product identification (e.g. part numbers or MTM+S/N) must match the content of the package or handling unit. Barcodes must be printed on the product package labels as specified in sections 4 and 5 to enable reconciliation by the customer or Customs using the packing list.

d) The Packing List layout shall be as specified in section 6.2.2, and the examples that follow.

e) The Packing List must be printed using Arial sans-serif typeface.

f) Minimum text sizes for each element are shown in Table 8 - Packing List Data Elements.

g) Packing Lists are to be printed on standard letter (U.S. 8.5”x11” or ISO A4) size common white paper.

h) Do not hand write information on Packing Lists. All information must be machine printed.

i) Packing Lists are to be affixed to the outside of the MTM (carton or overpack) or other handling unit if not an MTM order, by use of a clear adhesive-backed envelope.

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6.2 Content & Layout

6.2.1 Packing List Data Elements

Label Section	Data Element Title	Text Requirement	Text Format	Min Text Size (Pts.)*	Reference Section
1	Date	**Required**	yyyy-mm-dd	10B	n/a ISO format
1	"Packing List"	**Required**	Fixed Title	12B	n/a fixed text
1	Page Count	**Required**	N "x of n"	10B	n/a
1	Ship Set No.	**Required**	AN10	Title – 10B Data – 10	8.1.3.1.1 w/o DI
1	Order Number	**Required**	AN8"-"AN4	Title – 10B Data – 10	8.1.3.2.6
1	Customer P.O.	**Required**	AN1..23	Title – 10B Data – 10	8.1.3.1.2 w/o DI
2	"Features…"	**Required**	Fixed Title	10B	n/a fixed text
2	Feature numbers	**Required**	AN4..AN6	10	6.2.2.2
3	Table Col. Header	**Required**	AN See Example	10B	n/a fixed text
3	MTM	**Required if MTM order**	AN7	10	8.1.3.2.1
3	Feature #	Optional	AN4..AN6	10	Not used
3	MFI/SMU P/N	**Required**	AN7..AN11 per line	10	6.2.2.3
3	Serial Number	**Required if MTM order**	AN7	10	6.2.2.3
3	Qty	**Required**	N1..3 per line	10	8.1.3.2.3
3	Description	**Required**	AN1..23 per line	10	8.1.3.2.4
3	Country of Origin Code	**Required for each part**	A2	10	8.1.3.2.5
4	Country of Origin Statement	**Required**	N1..30	10	4.1.2.3.1

Table 8 - Packing List Data Elements

* B= Bold text.

See *6.2.2 T1 Packing List Format &* Layout on page 42 for an explanation of section numbers.

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6.2.2 T1 Packing List Format & Layout

Section

Packing List

Date *yyyy-mm-dd*
Page *x* **of** *n*

1

Ship Set No.	**Order Number**	**Customer PO Number**
nnnnnnnnnn	*nnnnnnnn-nnnn*	*anananananananana*

2

Features associated with this order: *nnnn, nnnn, nanana, …*

3

Machine Type Model	Feature	Part Number	Serial Number	Qty	Description	Origin
tttt-mmm		*MFI1 P/N*	41*sssss*		*MFI1 MTM Desc*	*MFI1 CC*
		SMU1 P/N		*SMU1 Qty*	*SMU 1 MTM Desc*	
		MFI2 P/N			*MFI2 Desc*	
		MFI3 P/N			*MFI3 Desc*	*MFI3 CC*
		SMU3 P/N		*SMU3 Qty*	*SMU3 Desc*	
		↓		↓	↓	↓
		MFIn P/N			*MFI n Desc*	*MFI n CC*
		SMUn P/N		*SMUn Qty*	*SMU n Desc*	

4

This case contains merchandise from the following countries: *COUNTRY1, COUNTRY2, …,COUNTRYn*

Figure 2 T1 Packing List Format & Layout

6.2.2.1 *Section 1*

Packing List section 1 elements consists of header information relating to order identification, but not specific order content. All items in section 1 are explained in other sections of the guide (i.e. Date, order number, etc.), or are self-explanatory. See the Reference Section identified for additional information.

6.2.2.2 *Section 2*

Section 2 of the packing list shows the features ordered by the customer. This information is extracted from the feature MFI descriptions passed to Fulfillment via the order lines of the ESO. Feature listing will be either 4 digit feature numbers, or 6 character RPQ numbers.

6.2.2.3 *Section 3*

Section 3 shows the detailed ordered items and associated physical content included in the order.

6.2.2.3.1 *Section 3 Column Headings*

a) **Machine Type Model -** If the order is for an MTM or "* item" in Oracle, it will listed first and include the ordered Machine Type and Model.
b) **Feature -** Not currently used
c) **Part Number -** All items in the order must have an MFI P/N that is associated with a feature code from

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section 2. Items with physical content will also have a SMU P/N listed beneath that MFI. Note in Figure 5 *TGCS Packing List Example* above that MFI2 does not have a related SMU2, nor does it have a qty. This is because there is no physical part associated with this MFI. For example, assuming feature code 2901, a voltage feature code, is ordered. It is associated with MFI 9992901, however this "feature" does not have any physical content, i.e. no parts are assigned or shipped based on that feature or MFI. Therefore, there will be no SMU P/N, QTY, or Origin shown.

d) **Serial Number -** The MTM Serial Number in the standard 41sssss format.
e) **Qty -** The SMU qty included in the order. Only physical parts show qtys.
f) **Description -**. The part description passed to fulfillment via the sales order.
g) **Origin –** The 2-character ISO-3166 country code of physical content (while adjacent to the MFI, the Origin is of the physical part SMU under the MFI).

6.2.2.4 *Section 4*

Section 4 lists the full name of the Country of Origin in uppercase English for all SMUs on the order.

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6.2.3 T1 Packing List Example

Packing List **2017-08-16**

Page 1 of 1

Ship Set No.	Order Number	Customer PO Number
1114880702	11148807-0201	PORD1362592

Features associated with this order: 2901, 7205, 9202, 7348, 7863, 7884, 9202, 9870

Machine Type Model	Feature	Part Number	Serial Number	Qty	Description	Origin
4900 -785		9633085	41BKP71		4900-785 FBM GBM	MY
		9633005		1	4900785 SMU	
		9992901			Voltage 200-240VAC	
		99Y3174			DOCUMENT KIT	HU
				1	Manual Kit SMU	
		3AA00814100				
		00EP034			INSERT LOCK	CN
		4674170		2	Lock Insert	
		41A3298			POWER CORD 4.3M	CN
		80Y3295		1	CABLE SMU PwrCord	

This case contains merchandise from the following countries: MALAYSIA, HUNGARY, CHINA

Figure 3 T1 Packing List Example

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6.2.4 TGCS Logistic Center Packing List Example

The format and layout of the internal Oracle TGCS manufacturing Packing List differs slightly from those created by T1 fulfillment suppliers. An example is shown below.

TGCS Packing List

Date: 13-Feb-2017

Page 1 of 1

(1P)Mach. Type-Model: (S)Mach. Serial No: (1K)Sales Order No: (K)Customer PO: (P)Customer Assigned Part No:

11185292

Features associated with this order:

Item Number/ Mach Type-Model	Serial Number	Qty	Description	Origin	Case#
4888-E11	DL45084	1	TGC Self Checkout System 6 Scanning + Payment + 1-bag module	US	9DLUS01963801
4888-E11	DL45085	1	TGC Self Checkout System 6 Scanning + Payment + 1-bag module	US	9DLUS01963800

This case contains merchandise from the following countries:
United States

These products are shipped with the following cases:
9DLUS01963800, 9DLUS01963801

End Of List

Figure 5 TGCS Packing List Example

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7 Product Package (POS) Label

The ***Product Package Label*** is a label that is affixed to the product package for a MTM finished goods order shipping to a TGCS Customer. This is label is known as the Point Of Sale or POS label. Its purpose is to allow the customer easy identification of the product, its configuration, and order details. It is important to understand that this label will contain exclusively product related information and no shipping and/or transportation related information. Such information is reserved for the shipping and casing labels, which are described in sections 8 and 9 .

7.1 Content & Layout

7.1.1 Ground Rules for POS Labels

a) Every serialized MTM order for shipment to a TGCS customer must have a POS label. The POS label is applied to the outermost carton of the order, i.e. overpack if so packed, or on each serialized MTM carton if no overpack is used (e.g. bulk pack or "open box").

b) A POS label must contain at minimum the data elements that are specified as 'Required' in section 7.1.2.

c) The label layout shall be as specified on page 51 and the examples that follow.

d) The label must be printed using Arial sans-serif typeface.

e) Sections 3, 4, 5 titles, and the CoO name are to be in Arial Bold.

f) Minimum text sizes for each element are shown in Table 9 - *POS Label Data Elements.*

g) HR data should be slightly larger than the other text (e.g. titles) on the labels.

h) Label stock should be approximately 5x9 inches (127x 229 mm).

i) It is vital that the product identification (e.g. part number or machine type model) matches what the customer or business partner specified to order the product. For example, if the product was ordered via "machine type-model and feature codes", then that information must appear on the POS label. This permits the customer or business partner to easily reconcile their order.

j) The POS label must properly identify the country of origin of the serialized MTM. Country of origin requirements are documented in section 2.

k) The product identification (e.g. part number or machine type model) must match the content of the package. Bar codes must be printed on the product package labels as specified in sections 4 and 5.

l) Do not hand write information on POS labels. All information must be machine printed.

m) POS labels must comply with any country specific requirements defined by TGCS.

n) Tier 1 suppliers may include information (e.g. Shop Floor Control System number) and barcodes in the MFG use section (section six of the label), but content must be reviewed and approved by TGCS prior to implementation.

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7.1.2 POS Label Data Elements

Label Section	Data Element Title	Text Requirement	Text Format	Min Text Size (Pts.)*	Bar Code Required?	Bar Code Data Identifier (DI)	Reference Section
1	"Point of Sale" Description	**Required**	Fixed Title and AN1..15	16	No	n/a	7.1.3.1.1
1	Machine Type Model	**Required**	AN8	14	No	n/a	7.1.3.1.2
1	Serial Number	**Required**	AN7	14	No	n/a	7.1.3.1.3
2	Feature, Qty & Description	**Required**	N4 Feature code N(n) Qty A(n) Description	8	No	n/a	7.1.3.2.1
3	M/T Model	**Required**	AN7	Title – 10B Data – 12	**Yes**	1P	7.1.3.3.1
3	Serial No.	**Required**	AN7	Title – 10B Data – 12	**Yes**	S	7.1.3.3.2
4	Ship Set No.	**Required**	AN10	Title – 10B Data – 12	**Yes**	1Y	7.1.3.4.1
4	Order Number	**Required**	AN8"-"AN4	Title – 10B Data – 12	**Yes**	1K	7.1.3.4.2
4	M/T Model – Serial No.	**Required**	AN14	Title – 10B Data – 12	**Yes**	1S	7.1.3.4.3
4	Country of Origin Code	**Required**	AN2	Title – 10B Data – 12	**Yes**	4L	4.1.2.3.2
4	Country of Origin Statement	**Required**	AN1..30	Title – 10B Data – 12B	No	n/a	4.1.2.3.1
4	Date	**Required**	yyyy-mm-dd	12	No	n/a	7.1.3.4.6
5	Website pointer	**Required**	fixed content per 3AD00534500	Size to fit per dwg.	No	n/a	7.1.3.5
6	Mfg Use	Optional	T1 supplier use	No greater than 10	No	n/a	7.1.3.6

Table 9 - POS Label Data Elements

* B= Bold text.

Note: See *7.1.4 POS Label Layout* on page 51 for an explanation of section numbers

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7.1.3 POS Label Data Element Details

7.1.3.1 *POS Section 1, Product ID*

7.1.3.1.1 *Point of Sale Description*

The Point of Sale Description is provided to the T1 fulfillment supplier by TGCS at initial product release. It is a classification of a MTM into a general product type category. Example descriptions include **Terminal, Printer, Kiosk, Display**, etc. The typeface style should be bold white on a black background

7.1.3.1.2 *Machine Type Model*

The MTM includes the four-character Machine Type (t) and three-character Model (m) as passed to the T1 fulfillment supplier associated with the external sales order.Type and model are separated by a hyphen in this section.

7.1.3.1.3 *Serial Number*

The TGCS machine serial number assigned and associated with that external sales order. The serial number will always have a "41" prefix followed by the five-character variable serial number unique to that machine. Any leading zeros are significant and must appear

7.1.3.2 *POS Section 2, Configuration*

7.1.3.2.1 *Configuration*

a) Feature: This field denotes the TGCS feature number associated with each ordered item from the external sales order.
b) Quantity: The Quantity of each feature packed within the container.
c) Description: This field denotes the feature description of all items that were packed in the container. This is also what is listed on the external sales order

7.1.3.3 *POS Section 3, Machine Details*

Section 3 includes the Machine Type (t), Model (m), and Serial Number (s). Any leading zeros are significant and must appear. The serial number will always have a "41" prefix followed by the 5-character variable serial number unique to that machine.

7.1.3.3.1 *(1P) M/T Model Barcode*

This format is to be used for a MTM bar code unless otherwise directed. Leading zeros are significant and must be encoded. No hyphen is used to seperate MT and Model in the PO label
Data Identifier: 1P
Value after identifier: 4-character MT (t), 3-character Mod (m). No hyphen is used in this section.
Title: (1P) M/T Model:
example: (1P) M/T Model: 4900785
Example of encoded data: *1P4900785* (note "1P" DI is included in the encoded data)
Example:

(1P) M/T Model: 4900785

Note the tab spacing between the title and the HR value to increase readability

7.1.3.3.2 *(S) Serial Number Barcode*

This format is to be used for S/N bar codes unless otherwise directed. Leading zeros are significant and

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must be encoded.
Data Identifier: S
Value after identifier: 7-character machine S/N
Title: (S) Serial No:
example: (S) Serial No: 41AB123
Example of encoded data: *S41AB123* (note "S" DI is included in the encoded data)
Example:

(S) Serial No: 41AB123

Note the tab spacing between the title and the HR value to increase readability.

7.1.3.4 *POS Section 4, Machine, Order, and Origin*

Section 4 includes the Order Ship Set number, ESO Order No., MTM-S/N, Country of Origin, and Date processed. Any leading zeros are significant and must appear

7.1.3.4.1 *(1Y) Order Ship Set No.*

Data Identifier: 1Y
Value after identifier: 10-digit ship set number (8-character Oracle order number plus 2-digit shipset
Title: (1Y) Ship Set No.:
example: **(1Y) Ship Set No:** 1001202601
Example of encoded data: *1Y1001202601* (note "1Y" DI is included in the encoded data)
Example:

(1Y) Ship Set No: 1001202601

7.1.3.4.2 *(1K) Order No*

Data Identifier: 1K
Value after identifier: Sales Order Number (8-digit Oracle sales order, "-"2-digit Oracle line number, 2 digit Oracle shipment number).
Title: (1K) Order No:
example: **(1K) Order Number: 10012026-0101**
Example of encoded data: *1Y10012026-0101* (note "1K" DI and the hyphen are included in the encoded data)
Example:

(1K) Order No: 10012026-0101

7.1.3.4.3 *1S M/T Model-Serial-No.*

Data Identifier: 1K
Value after identifier: 4-character MT (t), 3 character Mod (m), 7 character S/N (41+sssss). Note no hyphen separators are used for MTM in the barcode section of the POS label.
Title: 1S M/T Model-Serial-No:
example: **1S M/T Model-Serial-No:** 490078541123AB

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Example of encoded data: *1S490078541123AB* (note "1S" DI is included in the encoded data)
Example:

(1S) M/T Model-Serial-No: 490078541123AB

7.1.3.4.4 *4L Country of Origin*

See 4.1.2.3.2 on page 19

7.1.3.4.5 *Country of Origin Statement*

See 4.1.2.3 on page 18

7.1.3.4.6 *Date*

Use the ISO date format (yyyy-mm-dd) of the date the POS label was created, e.g. 2016-08-31

7.1.3.5 *POS Section 5, Web Pointer*

7.1.3.5.1 *Toshiba publications website artwork*

The following artwork must be included on all TGCS POS labels. See P/N 3AD00534500 for requirements.

commerce.toshiba.com/support/publications

7.1.3.6 *POS Section 6, Mfg Use*

Section 6 is the lower 25mm of the label and may be used by the T1 Fulfillment supplier for their manufacturing purposes, e.g. Shop Floor Control tracking number. Label this section "For Manufacturing Use".

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7.1.4 POS Label Layout

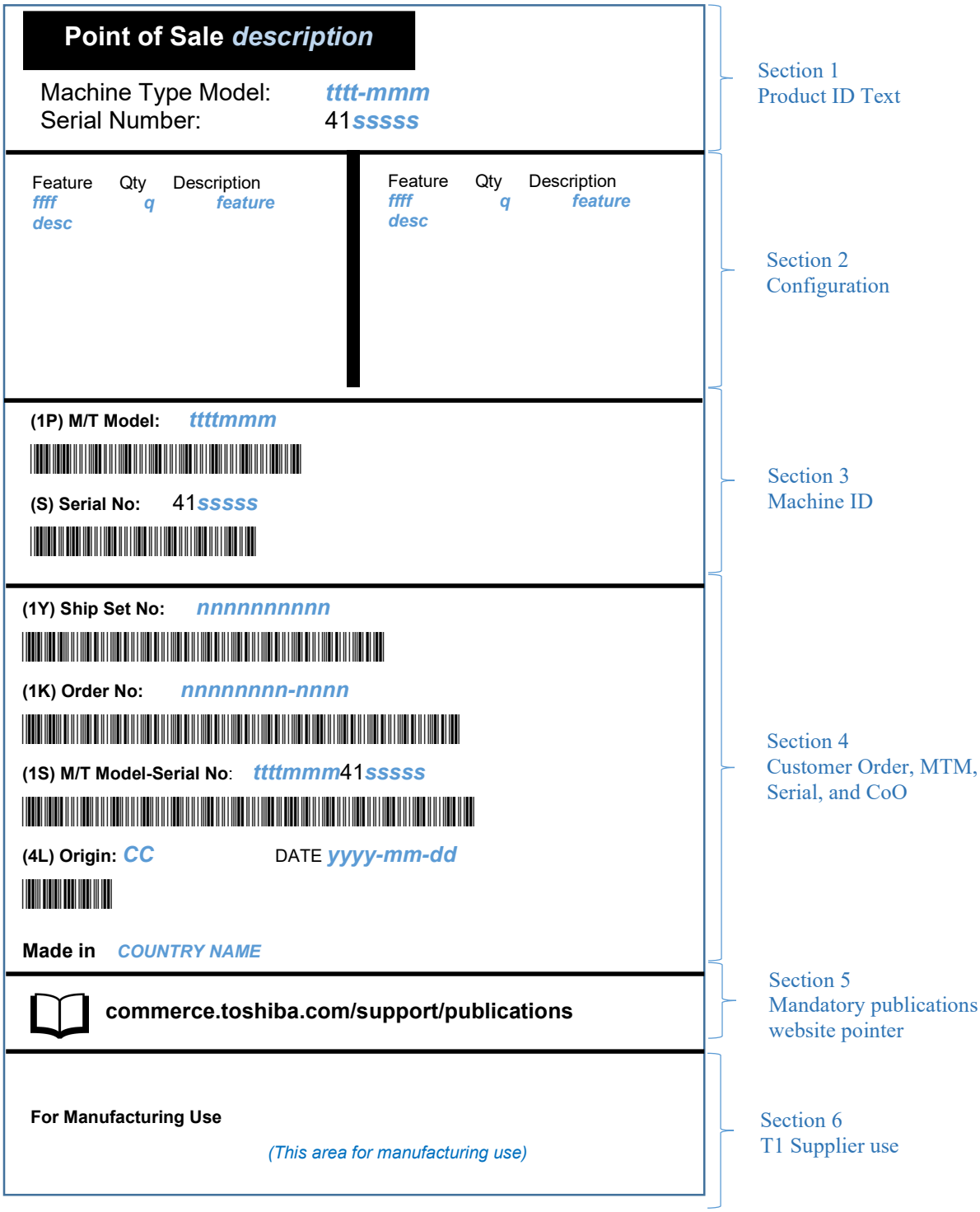

Figure 6 POS Label Layout

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7.1.5 POS Label Example

Point of Sale Terminal

Machine Type Model: 4900-745
Serial Number: 41MB160

Feature	Qty	Description
1986	1	MES TOP ROW RS485
2900	1	FC2900 – LOW VOLTAGE
2921	1	IRON GRAY SYS UNIT
7210	1	TRADITIONAL WIDE COVER
7267	1	SLANTED IO TRAY WIDE IRON
7344	1	64GB SYSTEM SSD
7862	1	4GB DDR3 SYSTEM MEMORY
9805	1	NO CASH DRAWER OR OEM
9807	1	NO DISPLAY
9808	1	NO KEYBOARD
9875	1	POWER CORD 4 3M ONLOCK

Feature	Qty	Description

(1P) M/T Model: 4900745

(S) Serial No: 41MB160

(1Y) Ship Set No: 1001202601

(1K) Order No: 10012026-0101

(1S) M/T Model-Serial No: 490074541MB160

(4L) Origin: MY **DATE:** 2016-05-14

Made in MALAYSIA

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For Manufacturing Use SFO:
0825500687

Figure 7 POS Label Example

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8 Case Contents Label

A 'Case Contents Label' itemizes what is contained in a case container, overpack box, or pallet to which it is applied. A case content label differs from part or POS labels in that it is affixed to a pallet or container that typically represents a higher consolidation level of packaging of **like or unlike** items.

Example 1: a pallet containing 16 (single packed) TCx®700's.

Example 2: an overpack box containing a quantity of 6 of item A, 10 of item B and 50 of item C.

8.1 Content & Layout

8.1.1 Ground Rules for Case Content Labels

a) Every customer order (ESO) for shipment to a TGCS customer must have a case contents label. The case contents label must be applied to the outermost carton of the order, i.e. overpack if so packed, or on each pallet or shipping entity. Only one case contents label per shipping entity is required.

b) A case contents label must contain at minimum the data elements that are specified as 'Required' in Table 10- *Case Contents Data Elements* on page 54.

c) The label layout shall be as specified and shown in *Figure 8 Case Content Label Layout* on page 57.

d) The label must be printed using Arial sans-serif typeface.

e) Label sections 1 and 2 titles and the CoO names are to be in Arial Bold.

f) Minimum text sizes for each element are shown in Table 10- *Case Contents Data Elements*

g) Label stock should be approximately 5"x9" (127x 229 mm).

h) It is vital that the product identification (e.g. part number or machine type model) matches what the customer or business partner specified to order the product or item.

i) The product description from the ESO must match the content of the package.

j) The product package label must properly identify the country of origin of all items in the case. Case contents labels require item CoO codes in section 2, and full English name in section 3. Full Country of Origin requirements are documented in section 2 of this guide.

k) Do not hand write information on Case Contents labels. All information must be machine printed.

l) Tier 1 suppliers may include a 2D encoded barcode in the MFG use section (section 4).

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8.1.2 Case Contents Label Data Elements

Label Section	Data Element Title	Text Requirement	Text Format	Min Text Size (Pts.)*	Bar Code Required?	Bar Code Data Identifier (DI)	Reference Section
1	Date	**Required**	yyyy-mm-dd	12	No	n/a	8.1.3.1.1
1	"Case Contents Label"	**Required**	Fixed Title	14B	No	n/a	n/a - fixed text
1	Case Count	**Required**	N "x of n"	10	No	n/a	8.1.3.1.2
1	Case Number	**Required**	AN13	Title 10 Data 14B	**Yes**	9S	8.1.3.1.3
1	Ship Set No. :	**Required**	AN10	Title – 10 Data – 12B	**Yes**	1Y	8.1.3.1.1
1	Customer P.O.:	**Required**	AN1..23	Title – 10 Data – 10B	**Yes**	K	8.1.3.1.2
2	"Case Contents"	**Required**	Fixed Title	14B	No	n/a	n/a - fixed text
2	MT/MD Part #	**Required**	AN7..11	10B	No	n/a	8.1.3.2.1
2	Serial #	**Required**	AN7	10B	No	n/a	8.1.3.2.2
2	Qty	**Required**	N1..3	10B	No	n/a	8.1.3.2.3
2	Description	**Required**	AN1..23 per line	10B	No	n/a	8.1.3.2.4
2	Country of Origin Code	**Required**	A2	10B	No	n/a	8.1.3.2.5
2	Order Number	**Required**	AN8"-"AN4	10B	No	n/a	8.1.3.2.6
3	Country of Origin Statement	**Required**	AN1..30	Title – 10B Data – 12B	No	n/a	4.1.2.3.1
4	Mfg Use 2D barcode	Optional	T1 supplier use	2D barcode only	Optional	n/a	8.1.3.4

Table 10- Case Contents Data Elements

* B= Bold text.

Note: See *8.1.4 T1 Case Contents Label Layout* on page 57 for an explanation of section numbers

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8.1.3 Case Contents Data Element Details

8.1.3.1 *Case Contents Section 1, Reference Numbers*

8.1.3.1.1 *Date*

Use the ISO date format (yyyy-mm-dd) of the date the shipment was cased e.g. 2016-08-31

8.1.3.1.2 *Case Count*

The unit number of this case of the total in this delivery. This is expressed as "x of n", where x is this case, and n is the total number of cases in the order.

8.1.3.1.3 *Case Number*

This is the case number of the shipping unit in which the item(s) were packed. While procedures associated with case number creation are beyond the scope of this document, case numbers begin with "9" and end in "00", unless there are multiple cases for an order. In that circumstance, the last 2 digits would be the incremental case number within that order.

Data Identifier: 9S
Value after identifier: 13 character Case Number
Title: (9S) Case Number:
example: (9S) Case Number: 9KFTM87Z9CW00
Example of encoded data: *9S9KFTM87Z9CW00* (note "9S" DI is included in the encoded data)
Example:

(9S) Case Number
9KFTM87Z9CW00

8.1.3.1.1 *Ship Set No.*

A 10-digit order identifier made up of 8-character Oracle order number plus 2-digit shipset number.

Data Identifier: 1Y
Value after identifier: 10 digit Shipset
Title: (1Y) Ship Set No.:
example: **(1Y) Ship Set No.:** 1001202601
Example of encoded data: *1Y1001202601* (note "1Y" DI is included in the encoded data)
Example:

(1Y) Ship Set No.: 1001202601

8.1.3.1.2 *Customer PO*

Customer PO Number associated with the external sales order.

Data Identifier: K
Value after identifier: Customer PO number
Title: (K) Customer P.O.:
example: (K) Customer P.O.: PORD01362592
Example of encoded data: *KPORD01362592* (note "K" DI is included in the encoded data)

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Example:

(K) Customer P.O.: PORD01362592

8.1.3.2 *Case Contents Section 2, Item Details*

Section 2 Elements are all human readable and not barcoded. These are generally self-explanatory.

8.1.3.2.1 *MT/MD Part#*

The Machine Type/Model for machines, or the part number for other item types.

8.1.3.2.2 *Serial #*

The 7-character machine serial number if applicable, leave blank if no serialized MTM

8.1.3.2.3 *Qty*

The qty of the item physically included in this case.

8.1.3.2.4 *Description*

MFI description of the item

8.1.3.2.5 *Origin*

The 2-character ISO-3166 country of origin code of the item in the case. Each line item must have a CoO code.

8.1.3.2.6 *Order #*

The full Sales Order number associated with the item. This identifier is made up of the 8-digit Oracle sales order, a hyphen separator, followed by the 2-digit Oracle line number, and 2-digit Oracle shipment number.

8.1.3.3 *Case Contents Section 3, Item Origin*

8.1.3.3.1 *Country of Origin Statement*

See 4.1.2.3 on page 18. The full CoO must be listed for each entity item in the case.

8.1.3.4 *Case Contents Section 4, Mfg Use*

This section is reserved for T1 manufacturer 2D barcode use only.

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8.1.4 T1 Case Contents Label Layout

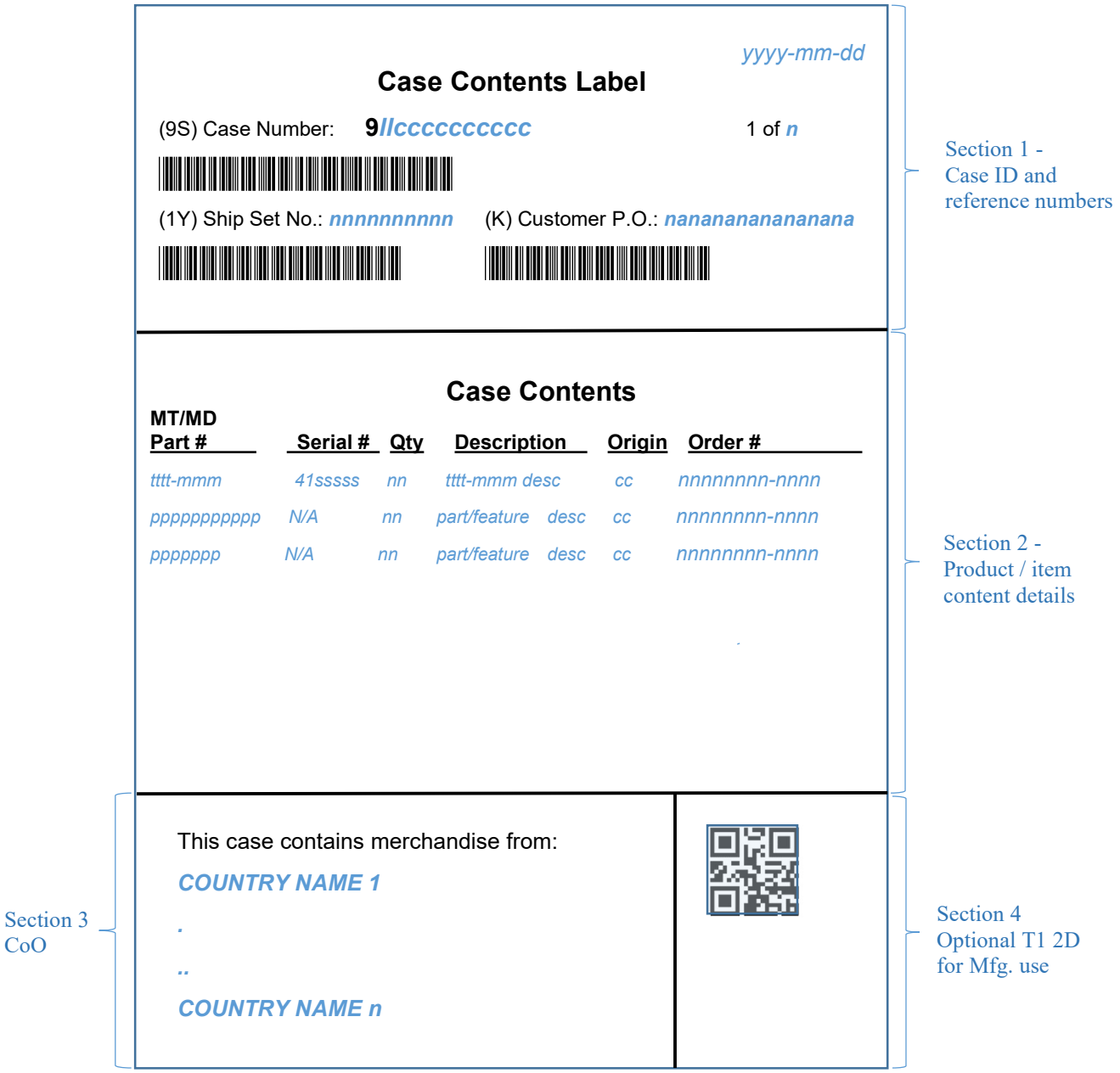

Figure 8 Case Content Label Layout

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8.1.5 T1 Case Contents Label Example

2016-08-17

Case Contents Label

(9S) Case Number: **9KFTM875Z8C00** **1 of 1**

(1Y) Ship Set No. #: **1115049804** (K) Customer P.O.: **DO1848190**

Case Contents

MT/MD Part #	Serial #	Qty	Description	Origin	Order #
4820-5LG	412XBGL	1	SMU 15” IG	TW	11150498-0401
4820-5LG	412XBGH	1	SMU 15” IG	TW	11150498-0401
4820-5LG	412XBGW	1	SMU 15” IG	TW	11150498-0401
4820-5LG	412XAHK	1	SMU 15” IG	TW	11150498-0401
4820-5LG	412XBGG	1	SMU 15” IG	TW	11150498-0401

This case contains merchandise from:

Taiwan, Province of China

Figure 9 T1 Case Contents Label Example

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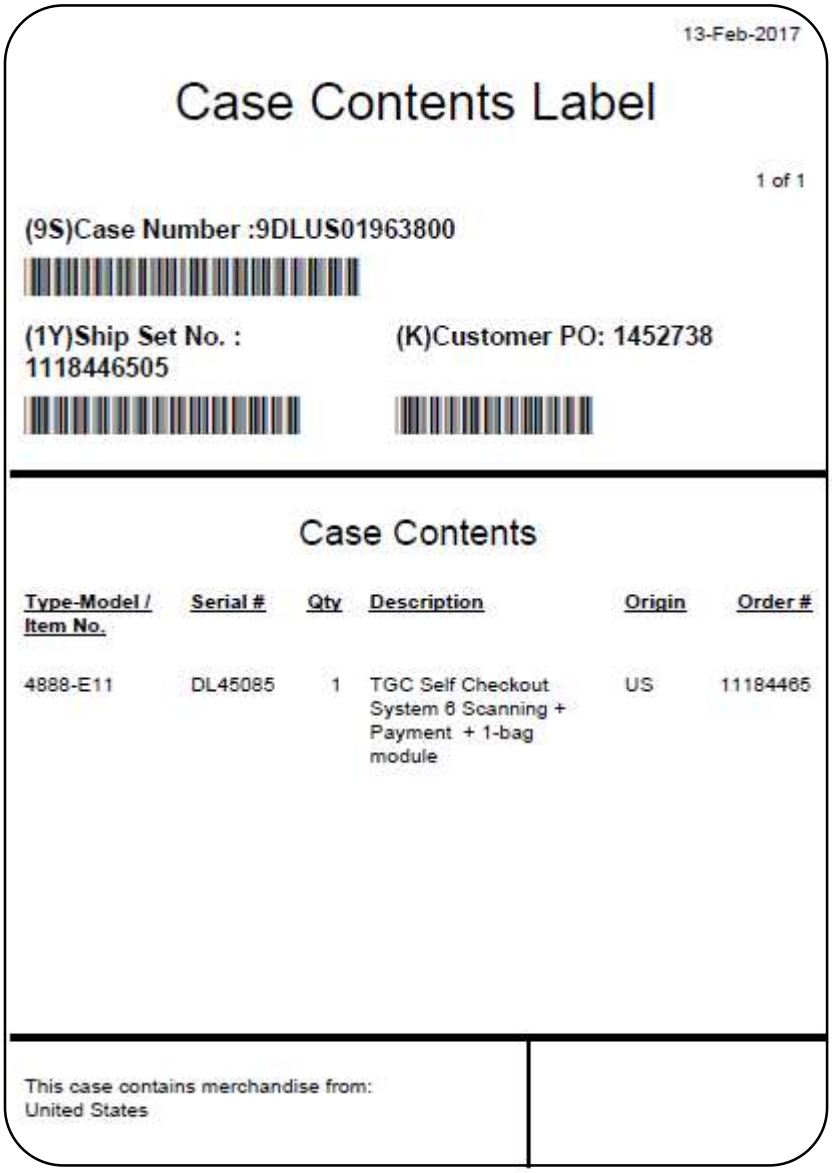
8.1.6 TGCS Case Contents Label Example

The format and layout of the internal Oracle TGCS manufacturing Case Content Label differs slightly from those created by T1 fulfillment suppliers. An example is shown below.



13-Feb-2017

Case Contents Label

1 of 1

(9S)Case Number :9DLUS01963800

(1Y)Ship Set No. : 1118446505

(K)Customer PO: 1452738

Case Contents

Type-Model / Item No.	Serial #	Qty	Description	Origin	Order #
4888-E11	DL45085	1	TGC Self Checkout System 6 Scanning + Payment + 1-bag module	US	11184465

This case contains merchandise from:
United States

Figure 10 TGCS Case Contents Example

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9 Shipping Label

This section defines the rules that apply to shipping labels. Its design and content is closely oriented on “ISO 15394 - Barcode and two-dimensional symbols for shipping, transport and receiving labels”.

A shipping label is affixed to the shipping container. Its purpose is to provide all necessary information to involved parties in the logistics chain in order for them to perform shipping, handling, and receiving of the product efficiently.

A shipping label, even if it contains product information, is never a substitute for the Product Package (POS) label on the individual MTM product package.

9.1 Content & Layout

9.1.1 General Rules for Shipping Labels

a) Every customer order (ESO) for shipment to a TGCS customer must have a shipping label The shipping label must be applied to the outermost carton of the order, i.e. overpack if so packed, or on each pallet or shipping entity. Only one shipping label per shipping entity is required.

b) A shipping label must contain at minimum the data elements that are specified as ‘Required’ in Table 11 *Shipping Label Data Elements* on page 61.

c) The label layout shall be as specified and shown in Figure 11 *Shipping Label Layout* on page 65.

d) The label must be printed using Arial sans-serif typeface.

e) Minimum text sizes for each element are shown in Table 11 *Shipping Label Data Elements* on page 61.

f) Label stock should be approximately 5”x9”.

g) Leading zeroes in dimensions and weights are not significant and should not be printed.

h) It is vital that the product identification (e.g. part number or machine type model) matches what the customer or business partner specified to order the product or item.

i) The product description from the ESO must match the content of the package.

j) Do not hand write information on shipping labels. All information must be machine printed.

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9.1.2 Shipping Label Data Elements

Label Section	Data Element Title	Text Requirement	Text Format	Min Text Size (Pts.)*	Bar Code Required?	Bar Code Data Identifier (DI)	Reference Section
1 or 4	Date	**Required**	yyyy-mm-dd	10	No	n/a	9.1.3.1.1
1	Ship From	**Required**	AN1..35	10	No	n/a	9.1.3.1.2
1	Ship To	**Required**	AN1..35	12	No	n/a	9.1.3.1.2
1	Return To	**Required**	AN1..35	10	No	n/a	9.1.3.1.2
1	Case/LPN Count	Optional if =1,Required if >1	AN "x of n"	10	No Yes if >1	n/a	9.1.3.1.3
2	Ship Via	**Required**	AN1..35	10	No	n/a	9.1.3.2.1
2	SCAC	**Required**	AN4	Title – 10 Data – 12B	**Yes**	4V	9.1.3.2.2
2	Bill of Lading	**Required**	AN12	Title – 10 Data – 12B	**Yes**	2K	9.1.3.2.3
2	Dimensions	**Required**	AN, see example	Titles – 10B Data - 10	No	n/a	9.1.3.2.4
3	Order Number	**Required**	AN8"-"AN4 or fixed	Title – 10 Data – 10B	**Yes**	1K	9.1.3.3.1
3	Ship Set No.	**Required**	AN10	Title – 10 Data – 10B	**Yes**	1Y	9.1.3.3.2
3	Customer P.O.	Optional	AN1..23	Title – 10 Data – 10B	Optional, Yes if provided	K Optional	9.1.3.3.3
3	Customer Assigned Part Number	Optional	AN1..23	Title – 10 Data – 10B	Optional, Yes if provided	P Optional	9.1.3.3.3
3	Serial Number	Optional	AN1..23	Title – 10 Data – 10B	Optional, Yes if provided	S Optional	9.1.3.3.3
3	Item Number / MTM	Optional	AN1..23	Title – 10 Data – 10B	Optional, Yes if provided	1P Optional	9.1.3.3.3
4	Case Number	**Required**	AN13	Title 10B Data 36B	**Yes**	9S	9.1.3.3.4

Table 11 Shipping Label Data Elements

* B= Bold text
Note: See on page 65 for an explanation of section numbers.

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9.1.3 Shipping Label Data Element Details

9.1.3.1 *Shipping Label Section 1, Addresses*

Section 1 Elements are all human readable and not barcoded. These are generally self-explanatory.

9.1.3.1.1 *Date*

Use the ISO date format (yyyy-mm-dd) of the date the shipment was cased e.g. 2016-08-31. The Date may appear in either section 1 -OR- section 4.

9.1.3.1.2 *Ship From /Ship To /Return To Address*

These address fields are completed from information in DFFs (Descriptive Flex Fields) taken from the Oracle ESO, which is beyond to scope of this document. Addresses are limited to 7 lines x 35 characters/line. The Ship To field should be in larger type than other address fields.

9.1.3.1.3 *Case/LPN Count*

This element is optional. The unit number of this case of the total in this delivery. This is expressed as “x of n”, where x is this case, and n is the total number of cases in the order.

9.1.3.2 *Shipping Label Section 2, Routing & Logistics*

9.1.3.2.1 *Ship Via*

The ship via address is used to inform transport logistics (e.g. Geodis) that the shipment is to either be delivered to a Country Distribution Center (CDC), and/or a Carrier tracking (PRO#) number.

9.1.3.2.2 *SCAC*

The four character NMFTA Standard Carrier Alpha Code along with the complete freight carrier name should be printed on the shipping label.

Data Identifier: 4V
Value after identifier: 4-character SCAC code
Title: (4V) SCAC:
example: (4V) SCAC: **GEOD**
Example of encoded data: *4VGEOD* (note “4V” DI is included in the encoded data)
Example:

(4V) SCAC **GEOD**

GEODIS

9.1.3.2.3 *Bill of Lading*

The bill of lading is a legal document for transportation. The BoL number logically ties cases together during transportation. It is the US and Canada equivalent to the European CMR. (CMR = Convention on the Contract for the International Carriage of Goods by Road).

Data Identifier: 2K
Value after identifier: 12 character BoL number
Title: (2K) Bill of Lading:
example: (2K) Bill of Lading: **9JHIN0103290**

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Example of encoded data: *2K9JHIN0103290* (note "2K" DI is included in the encoded data)
Example:

(2K) Bill of Lading: **9JHIN0103290**

9.1.3.2.4 *Dimensions*

This section of the shipping label documents the case physical dimensions and weight. Required elements are Length (L), Width (W), Height (H), and Gross Weight. Information is to be presented in both Imperial (inches and pounds) and SI (centimeters and kilograms) units. See the example layout on

9.1.3.3 *Shipping Label Section 3, Customer Information*

9.1.3.3.1 *(1K) Order Number*

Because a shipment can (and usually does) contain more than a single order, if the sales order number count is greater than 1 then "SEE CASE CONTENT LABEL" is to be printed rather than a specific order number. If the sales order number quantity is 1 then the sales order number is to be printed

Data Identifier: 1K
Value after identifier:
1) Full Sales Order Number (8 digit ESO Oracle sales order, "-",2 digit Oracle line number, and 2 digit Oracle shipment number).
2) If multiple order numbers are included in this shipment, print "SEE CASE CONTENT LABEL"
Title: (1K) Order Number:

Example (1): (1K) Order Number: 10012026-0101
Example (2): (1K) Order Number: SEE CASE CONTENT LABEL

Example of encoded data (1) *1K10012026-0101* (note "1K" DI and the hyphen is included in the encoded data)
Example of encoded data (2) *1KSEE CASE CONTENT LABEL* (note "1K" DI and spaces are included in the encoded data)
Example (1):

(1K) Order No. : 10012026-0101

Example (2):

(1K) Order No. : SEE CASE CONTENT LABEL

9.1.3.3.2 *Ship Set No.*

The 10-digit order identifier (8 character Oracle order number plus 2 character shipset number.).

Data Identifier: 1Y
Value after identifier: 10 digit Shipset
Title: (1Y) Ship Set No.: .or **(1Y) Ship Set Number**
example: (1Y) Ship Set No.: 1001202601 -
or- **(1Y) Ship Set Number :** 1001202601
Example of encoded data: *1Y1001202601* (note "1Y" DI is included in the encoded data)

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Example:

(1Y) Ship Set No.: 1001202601

9.1.3.3.3 *Optional Section 3 Elements*

The following are optional data elements that may be included in section 3. Typically, space limitations allow no more than four data elements in section 3. Two data elements are required (Order Number and System/Entity Number), allowing two of the following optional data elements to be included, depending on which fulfillment center is used (T1 supplier or TGCS Logistics).

a) Customer PO (DI=K)
b) Customer Assigned Part Number (DI=P)
c) Serial Number (DI=S)
d) Item Number / MTM (DI=1P)

These optional elements use the common format –

Data Identifier: K, P, S, or 1P
Value after identifier: 1 to 23 characters
Title: See a-d above
example: (K) Customer P.O. : AABB0123456789
or- (S) Serial Number : SEE CASE CONTENT LABEL
Example of encoded data: *KAABB012345678*9 (note the DI is included in the encoded data)
Example:

(K) Customer P.O. : AABB0123456789

9.1.3.3.4 *Case Number*

This is the case number (i.e. LPN) of the shipping unit in which the item(s) were packed.
Data Identifier: 9S
Value after identifier: 13 character Case Number
Title: (9S) Case Number:
example: (9S) Case Number:
9KFTM87Z9CW00
Example of encoded data: *9S9KFTM87Z9CW00* (note "9S" DI is included in the encoded data)
Example:

(9S) Case Number:

9KFTM87Z9CW00

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9.1.4 Shipping Label Layout

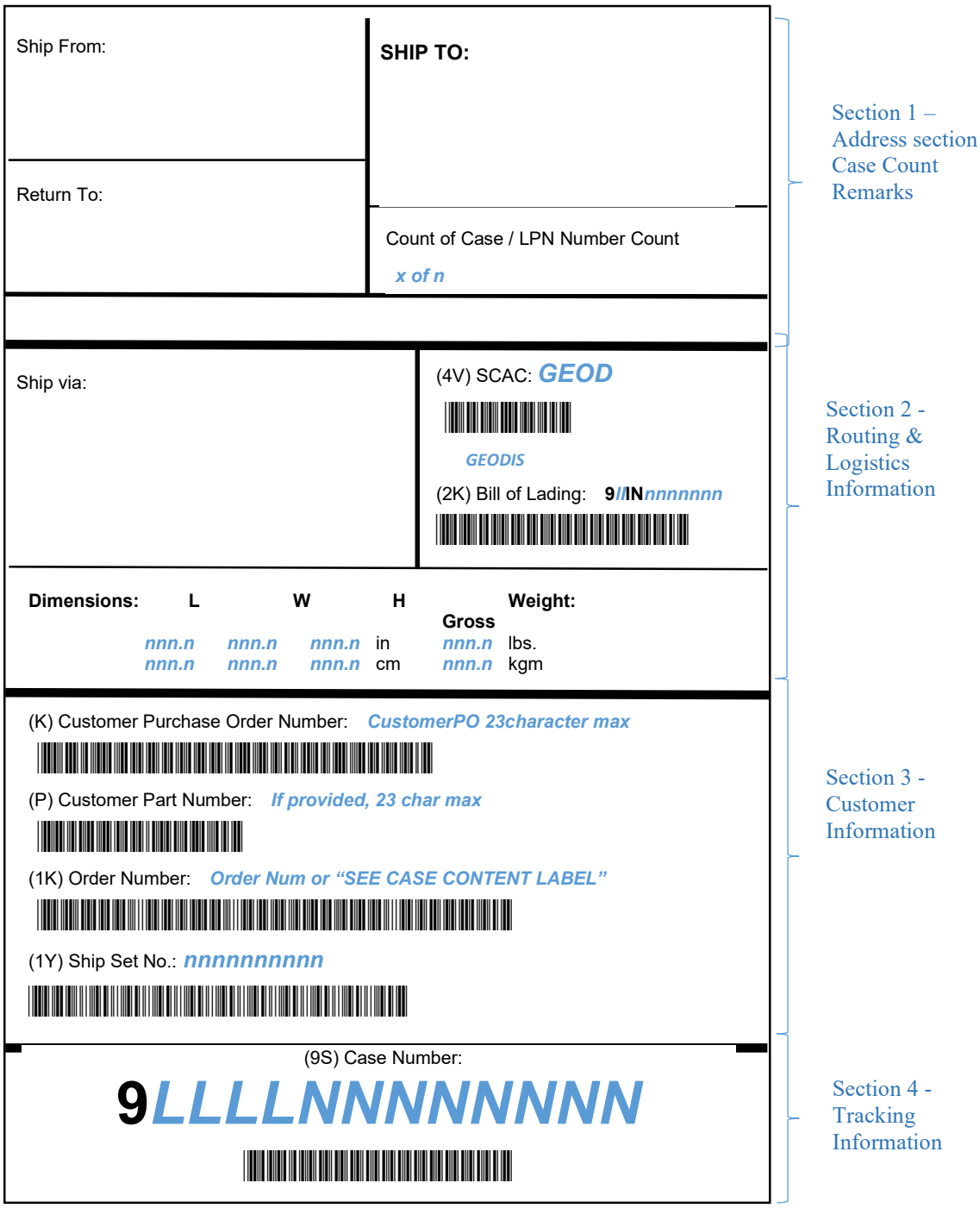

Figure 11 Shipping Label Layout

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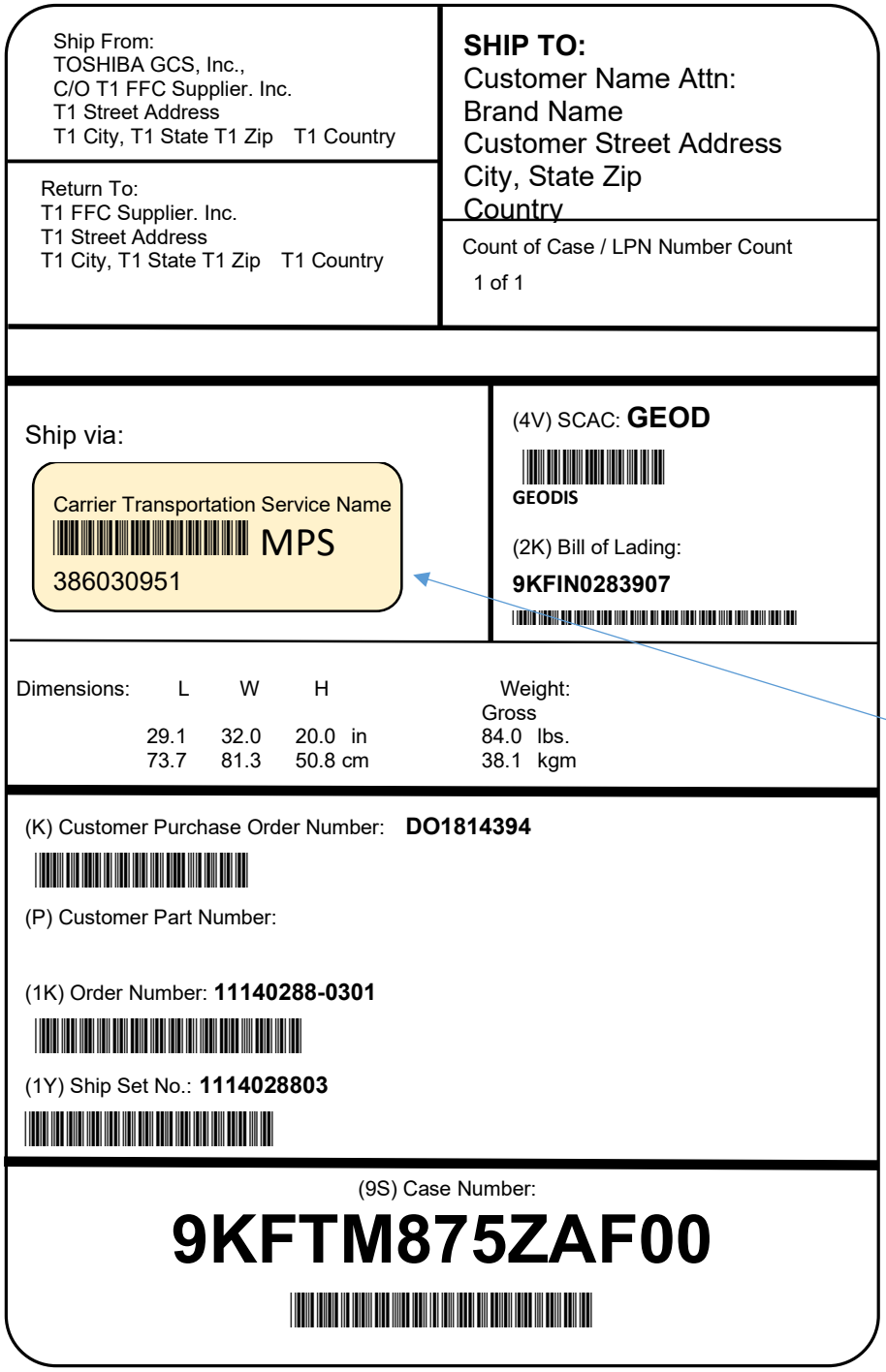
9.1.5 T1 Shipping Label Example (US)



Typically, a label similar to this is added by the carrier showing PRO tracking number.

Figure 12 T1 Shipping Label US Example

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9.1.6 T1 Shipping Label Example (Europe)

Ship From:
TOSHIBA GCS B.V. SG BR
C/O T1 FFC Supplier
T1 Street Address
T1 City, T1 Post al Code, T1 Country

Return To:
T1 FFC Supplier
T1 Street Address
T1 City, T1 Post al Code, T1 Country

SHIP TO:
Customer Name
National Distribution Center
Unit 10 Castle Way
Rugby CV341WB
United Kingdom

Count of Case / LPN Number Count
1 of 1

Ship via:

Toshiba GCS (U.K.) Limited
C/O Geodis UK Ltd
Coronation Road
High Wycombe HP12
United Kingdom

(4V) SCAC: **GEOD**

GEOD-Geodis Magyarszag Logisztika

(2K) Bill of Lading: **9JHIN0103210**

Dimensions:	**L**	**W**	**H**	**Weight: Gross**
	47.2	31.5	70.1 in	399.0 lbs.
	120.0	80.0	178.0 cm	181.0 kgm

(K) Customer Purchase Order Number: **PORD01252591**

(P) Customer Part Number:

(1K) Order Number: **SEE CASE CONTENT LABEL**

(1Y) Ship Set No.: **1114022303**

(9S) Case Number:

9JHHU01032100

Figure 13 T1 Shipping Label Hungary Example

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9.1.7 TGCS Logistic Center Shipping Label Example

The format and layout of the internal Oracle TGCS manufacturing Shipping Label differs slightly from those created by T1 fulfillment suppliers. An example is shown below.

Ship From: Toshiba Advanced Checkout Facility 2500 S Tricenter Blvd. Durham NC 27713-1852 United States	**Ship To:** Safeway Inc 451 E Wonderview Ave Estes Park, CO 80507 United States
Return To:	**Count of Case / LPN Number:** 1 of 2
Ship Via:	GEOD (4V) SCAC: - (2K) Bill of Lading: 9DLIN0012955

Dimensions:	L	W	H		**Weight Gross:**	
	67.0	43.0	55.0	in	442.0	lbs
	170.1	109.1	139.6	cm	200.4	kgm

(1P) TGCS Item Number/Machine Type-Model: 4888-E11

(1K) TGCS Order Number: 11184465

(S) Machine Serial Number: SEE CASE CONTENT LABEL

(1Y) Ship Set Number: 1118446505

Case/ LPN Number:
9DLUS01963800

Date: 13-Feb-2017

Figure 14 TGCS Shipping Label Example

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10 Compliance Symbols & Special Labels

This section gives an overview of special labels and markings that are applied for various purposes to product packaging. The term 'overview' is used, because the details may exist in other TGCS or standards bodies specifications. Users of this document are advised to obtain and understand those details before using any of the symbols referenced in this section.

Compliance marks are required by an increasing number of countries or geographic regions. These markings serve as an indication for customs as well as customers that the product meets all applicable regulatory requirements. All MTMs and many parts are required to have certification body test and/or approval marks for shipment to specific countries or geographies. These markings may be placed on the existing product carton labels, or if space is a limitation, compliance markings may be printed on a separate label and placed adjacent to the MTM label (see section 0) or the Part label if not an MTM (see section 4).

Some symbols are best printed directly on the corrugated product cartons. Unless otherwise specified, all printing on corrugated should be black in color. For example, the handling and website pointer should be embedded in the artwork for the product carton. Some examples…

NOTE: Guide users must obtain TGCS Engineering approval for all product handling or compliance markings prior to applying the mark on product or product cartons manufactured or shipped on behalf of TGCS.

NOTE: Country specific SPI (Shipping Procedural Instructions) should be reviewed for details on any additional requirements.

10.1 Energy Labelling

10.1.1 Label for Electronic Displays

This section establishes requirements for the labelling of, and the provision of supplementary product information on electronic displays, including televisions, monitors and digital signage displays. Each electronic display is required to be supplied with a label affixed to the exterior carton in printed form in the format and containing the information set out below. See *Official Journal of the European Union*, REGULATION (EU) 2019/2013.

10.1.1.1 *Label Content*

The following information shall be included in the label for electronic displays: See Figure 15 Label for electronic displays

I.QR code;

II. supplier's name or trade mark;

III. supplier's model identifier;

IV. scale of energy efficiency classes from A to G;

V. the energy efficiency class determined in accordance with point B of Annex II when using $Pmeasured_{SDR}$;

VI. on mode energy consumption in kWh per 1 000 h, when playing SDR content, rounded to the nearest integer;

VII. the energy efficiency class determined in accordance with point B of Annex II when using $Pmeasured_{HDR}$;

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VIII. the on mode energy consumption in kWh per 1 000 h, when playing HDR content, rounded to the nearest integer;

IX. visible screen diagonal in centimeters and inches and horizontal and vertical resolution in pixels;

X. the number of this Regulation, that is ‘2019/2013’.

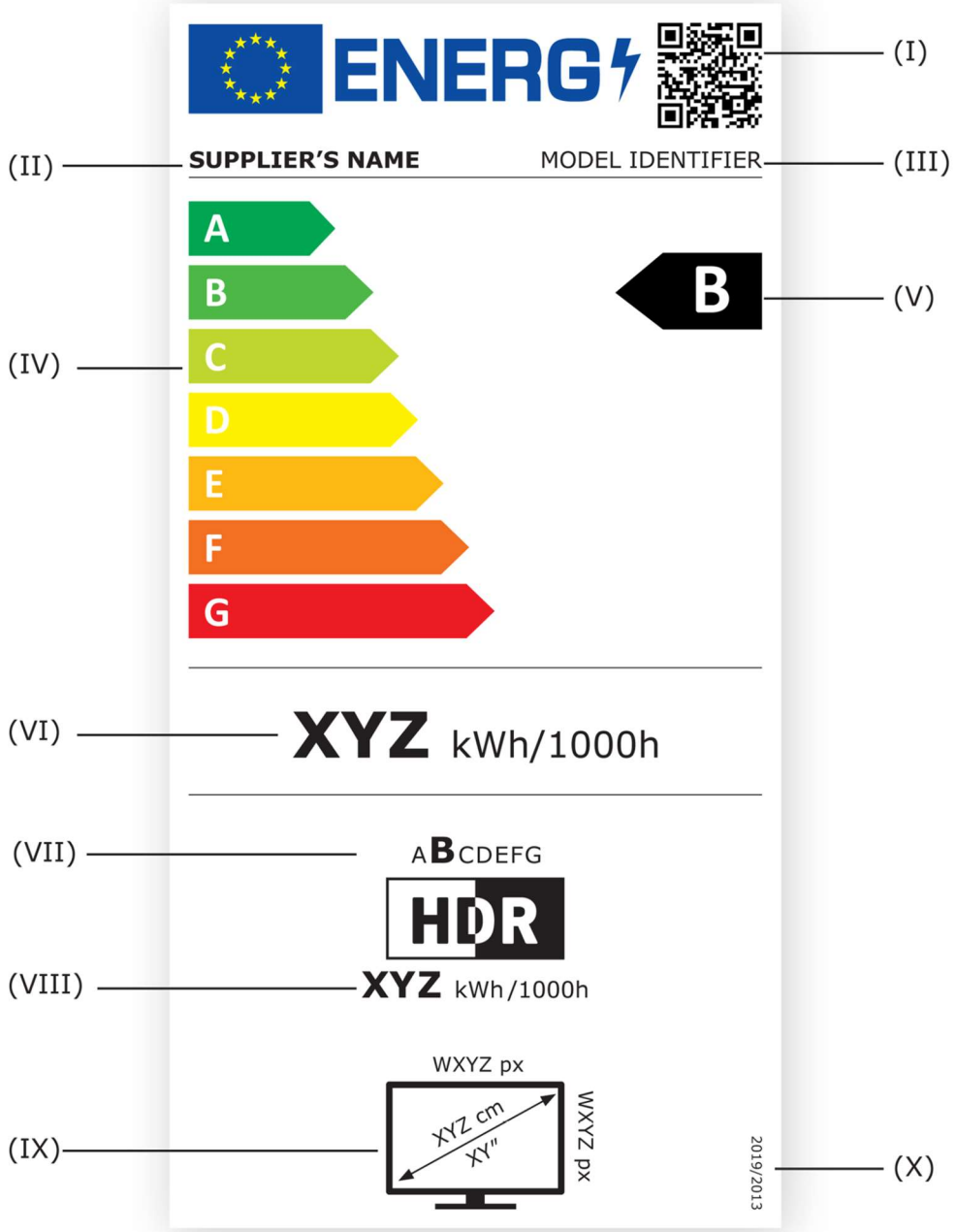

Figure 15 Label for electronic displays

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10.1.1.2 ***Label Design***

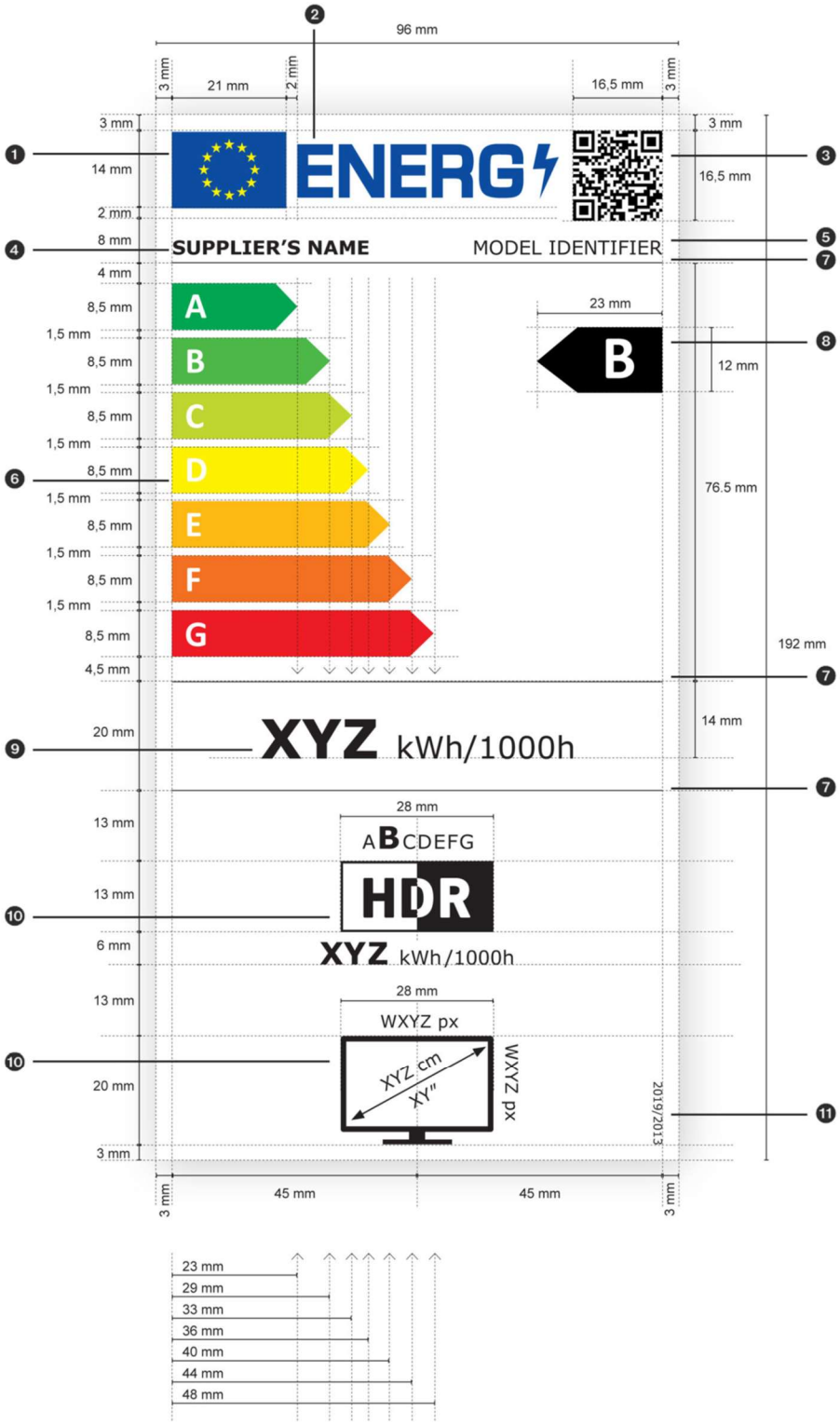

Figure 16 Label Design

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a) The label shall be at least 96 mm wide and 192 mm high. Where the label is printed in a larger format, its content shall nevertheless remain proportionate to the specifications above. For electronic displays with a size of the diagonal of the visible area less than 127 cm (50 inches), the label can be printed scaled down, but not less than 60 % of its normal size; its content shall nevertheless be proportionate to the specifications above and the QR code still readable by a commonly available QR reader, such as those integrated in a smartphone.

b) The background of the label shall be 100 % white.

c) The typefaces shall be Verdana and Calibri.

d) The dimensions and specifications of the elements constituting the label shall be as indicated in the label design.

e) Colours shall be CMYK — cyan, magenta, yellow and black, following this example: 0,70,100,0: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.

f) The label shall fulfil all the following requirements (numbers refer to Figure 16 Label Design above):

1. the colours of the EU logo shall be as follows:
   - the background: 100,80,0,0;
   - the stars: 0,0,100,0;
2. the colour of the energy logo shall be: 100,80,0,0
3. the QR code shall be 100 % black;
4. the supplier's name shall be 100 % black and in Verdana Bold 9 pt;
5. the model identifier shall be 100 % black and in Verdana Regular 9 pt;
6. the A to G scale shall be as follows:
   - the letters of the energy efficiency scale shall be 100 % white and in Calibri Bold 19 pt., centered on an axis at 4,5 mm from the left side of the arrows;
   - the colours of the A to G scale arrows shall be as follows:
     - A-class: 100,0,100,0;
     - B-class: 70,0,100,0;
     - C-class: 30,0,100,0;
     - D-class: 0,0,100,0;
     - E-class: 0,30,100,0;
     - F-class: 0,70,100,0;
     - G-class: 0,100,100,0;
7. the internal dividers shall have a weight of 0,5 pt and the colour shall be 100 % black;

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8. the letter of the energy efficiency class shall be 100 % white and in Calibri Bold 33 pt. The energy efficiency class arrow and the corresponding arrow in the A to G scale shall be positioned in such a way that their tips are aligned. The letter in the energy efficiency class arrow shall be positioned in the centre of the rectangular part of the arrow which shall be 100 % black;
9. the energy consumption value in SDR shall be in Verdana Bold 28 pt; 'kWh/1 000h' shall be in Verdana Regular 16 pt. The text shall be centered and in 100 % black;
10. the HDR and the screen pictograms shall be 100 % black and as shown as in the label design; the texts (numbers and units) shall be 100 % black, and as follows:
    - above the HDR pictogram, the letters of energy efficiency classes (A to G) shall be centered, with the letter of the applicable energy efficiency class in Verdana Bold 16 pt and the other letters in Verdana Regular 10 pt; under the HDR pictogram, the energy consumption value in HDR shall be centered, in Verdana Bold 16 pt with 'kWh/1 000h' in Verdana Regular 10 pt;
    - the texts of the screen pictogram shall be in Verdana Regular 9 pt and placed as in the label design;
11. the number of the regulation shall be 100 % black and in Verdana Regular 6 pt.

10.1.1.3 *Example Carton Placement*

Figure 17 Carton Placement Example

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10.2 Country Specific Compliance Labelling Requirements

10.2.1 European Union

It is a requirement of the European Union (EU) that products carry a "Mark of Conformity", commonly called the "CE MARK". Affixing the CE mark indicates that the product complies with all applicable directives. The EU countries require compliance marking on the product as well as the product packaging.

10.2.2 Korea

Korea requires a "KC" mark and a certification number to be shown on the outside of the packaging for products that have been certified. The label elements are;

1) Artwork of the KC Certification Mark.
2) KC Product Identification Code (i.e. Certification number) provided by certification body.
3) The applicant's name (Toshiba Global Commerce Solutions, Inc.).
4) **Type:** - typically the TGCS MTM.
5) **Product:** - equipment name, TGCS typically uses only "POS System", "Printer", or "Monitor".
6) **Manuf:** The manufacturer's name (if different from the applicant).
7) **공장:** If the Product name is "POS System", the Factory name is required, preceded by "factory" in Korean e.g. 공장:
8) **DOM:** - Date of manufacturing (YYYYMM or YYYYMMDD)
9) **Origin:** The full name of the country of origin in English.
10) **Input Rating:** The product input voltage (V), frequency (Hz), and current (A)

Some of these elements should already be on the product package label, including 'Country of Origin' and 'Date of Manufacturing'**. If so, they do not need to be duplicated within the KC labelling.**

In addition to above requirements, please note the following ground rules that apply to KC marking;

a) KC related markings on the package label must match those of the agency label (attached to the product directly).
b) The KC label data elements may be embedded into the part or MTM label.
c) If a separate KC label is used, it should be placed adjacent to the part or MTM carton label (see **Error! Reference source not found.**).
d) For integrated products, all KC certification numbers of the included products must be shown on the external packaging.

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e) Some elements above may not be required, depending on the product type or MTM. For example, low voltage products like monitors or printers are not required to show input rating.

f) All KC markings and labels must be reviewed and approved by TGCS Engineering prior to use.

Further information and details of the certification requirements are documented in 3AD0EMC1206.

10.2.2.1 *Example KC Label*

MSIP-REM-THQ-4810
Toshiba Global Commerce Solutions, Inc.

Type: 4810-370
Product: POS System
DOM: 201610
Origin: China
Manuf: Toshiba Global Commerce Solutions, Inc.
공장: T2 Supplier Name Co.,Ltd.
Input rating: 100-127/200-240V~/50-60 Hz / 4/2 A

Note Date of Manufacture and CoO are not duplicated on KC label.

MSIP-REM-THQ-4900
Toshiba Global Commerce Solutions, Inc.

Type: 4900-746
Product: POS System
Manuf: Toshiba Global Commerce Solutions, Inc.
공장: T2 Supplier Name
Input rating: 100-127/200-240V~/50-60 Hz / 4/2 A

MTM

ID NO **4900 746 41BATLN**
1S490074641BATLN
PART NO 00GU367

PN

ID NO **4900 41BATLN**
PART NO **00GU367**
1S00GU36741BATLN

MAC ID: 24:2F:FA:17:60:45

(4L) ORIGIN: IN 2016-08-10

MADE IN INDONESIA

BIOS XAKT120

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10.2.3 Indonesia

Any product, part, or FRU imported into Indonesia that is a Printer, Monitor, or Laptop/Notebook/Notepad with an HS Code shown in the table below must have a label in Bahasa Indonesia language affixed to both the physical product and the immediate package. The label content requirement for each HS code is shown in the table below (noted by the X).

Note: The required labels are typically applied by the Business Partner importing product into Indonesia.

Product Type English /Bahasa	HS Code(s)	Information Element on the Label	Immediate Package (Carton) Label	Article/Physical Goods Label
Monitor / **Monitor Komputer**	8528.41.10.00 8528.41.20.00 8528.49.10.00 8528.49.20.00 8528.51.10.00 8528.51.20.00 8528.51.30.00	(1) Brand Name	X	X
		(2) Importer Name & Address	X	Not required
		(3) Voltage (Volt) and Frequency (Hz): 100-240v / 50/60Hz	X	X
		(4) Country of Origin	X	X
Printer / **Mesin Pencetak**	8443.32.10.10 8443.32.20.10	(1) Brand Name	X	X
		(2) Importer Name & Address	X	Not required
		(3) Printer Type/Model	X	Not required
		(4) Voltage (Volt) and Frequency (Hz): 100-240v / 50/60Hz	X	X
		(5) Country of Origin	X	X
Laptop, Notebook, Notepad / **Komputer Laptop**	8471.30.10.00 8471.30.20.00	(1) Brand Name	X	X
		(2) Importer Name & Address	X	Not required
		(3) Voltage (Volt) and Frequency (Hz): 100-240v / 50/60Hz	X	X
		(4) Country of Origin	X	X

10.2.3.1 *Example Indonesia Label Layout:*

Note 1: Use labels with the Indonesian language only.

Note 2: These labels are only required for shipments into Indonesia.

Note 3: Country of Origin of the Indonesian label must match the Country of Origin of the existing product package label.

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10.2.3.1.1 *Article Label Layout & Example*

<Product Type>	**Mesin Pencetak**
Tegangan : *<Voltage>*	Tegangan : 100-240V
Frekuensi : *<Frequency>*	Frekuensi : 47-63 Hz
Dibuat di : *<Origin>*	Dibuat di : Cina
Layout	Printer Example

10.2.3.1.2 *Carton Label Layout & Example*

<Product Type>	***Monitor Komputer***
Diimpor oleh : *<Importer Name>* *<Importer Address>*	Diimpor oleh : *PT. TGCS BP Name* *Jakarta - Indonesia*
Tegangan : *<Voltage (V)>*	Tegangan : 100-240V
Frekuensi : *<Frequency (Hz)>*	Frekuensi : 43-63 Hz
Dibuat di : *<Country of Origin>*	Dibuat di : Cina
Layout	Monitor Example

10.2.4 Taiwan

Taiwan requires the following markings on Display product labels. The Taiwan Display markings may be embedded into the part carton label, MTM carton label, or printed directly on the carton. If a separate label is used, it should be placed adjacent to the part or MTM carton label. Artwork is available from TGCS Engineering.

1. 警語：使用過度恐傷害視力。
2. 注意事項：
   (1)使用30分鐘請休息10分鐘。
   (2) 2 歲以下幼兒不看螢幕。
   (3) 2 歲以上每天看螢幕不要超過1小時。

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10.2.5 India

Product shipping to India requires the following Bureau of Indian Standard (BIS) marking. The registration number below the mark (shown as XXXXXXXX in the example below) will change depending on the MTM of the product. The India marking may be embedded into the part or MTM label. If a separate label is used, it should be placed adjacent to the part or MTM carton label. Registration number and Artwork will be provided by TGCS Engineering.

10.2.6 Ukraine

Product shipping to Ukraine requires the following UkrTEST marking. The registration number below the mark will change depending on the MTM of the product (shown as 000 in the example below). The Ukraine marking may be embedded into the part carton or MTM carton label. If a separate label is used, it should be placed adjacent to the part carton or MTM carton label. Registration number and Artwork will be provided by TGCS Engineering.

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10.3 Environmental Markings or Labels

See TGCS Engineering Specification 3ADENVM0001 for additional details.

Sample of Symbol	Description and Use
PN 15R7482 Perchlorate Material - special handling ma See - www.dtsc.ca.gov/hazardouswaste/perc The foregoing notice is provided in accord California Code of Regulations Title 22, Di Chapter 33, Best Management Practices f	**Perchlorate Warning Statement** **Commonly used for many product FRU cartons.** Required for shipments of systems, options, and FRU's containing Lithium Manganese Dioxide batteries. Warning may either be shown in the manual or documents shipped with the product, or by applying a label to the exterior of the shipping package. TGCS includes this warning in the Product Safety booklet. Warning Flyer:P/N 42R6959 Label and artwork:P/N 15R7482
	EU Battery Directive **Commonly used for most MTM product cartons** European Union separate collection mark for electrical and electronic equipment containing batteries, including coin ce3lls. Indicates that the item must not be disposed of to the 'normal' household waste, but be separately collected and recycled. P/N 49P2563
 PN 42R8029	**Recycling Symbol** "Chasing Arrows" **Commonly used for most product cartons** P/N 42R8029

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Sample of Symbol	Description and Use
廢電池請回收	**Taiwan Battery Recycling Symbol.** **Not** commonly used on product carton labels. All dry cell batteries (= others than Lead Acid batteries) that are not filled sold in Taiwan are required to have the "Four-in-one" recycling symbol and the words, in Chinese characters, which interpreted mean "Please recycle batteries". This symbol must be printed on the product if possible and *optionally* on the package labels of products, where a battery is or may be contained. If the symbol cannot be printed on the product, it must be printed on the package label. Artwork P/N 22R2305

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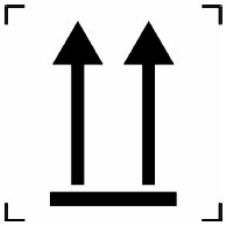
10.4 Special Handling Labels or Symbols

10.4.1 International Standard Handling Symbols

Whenever handling symbols are required, use only those symbols provided in ISO-780 or ASTM D5445. Any new symbols should follow the design guidelines of those standards. If what you are trying to convey is not covered by either of those standards, then consult section 10.4.2 for alternate symbols that may be used.

To comply with Chinese law, international symbols must be used. Reference ISO 780.

Except as noted, the items listed below may be applied to the package as a label or as printed icons directly on the package. The method of application is left largely to each shipper to determine the best method unless otherwise specified below. The preference is for the markings to be of maximum contrast such as black on kraft background.

Sample of Symbol	Description and Use
	Fragile indicator. **Commonly used for most products** This symbol is usually printed directly on the carton. It is routinely applied to all TGCS finished goods packaging. It is not applied to FRUs, parts, etc. **Important:** ISO-780 Style is Mandatory per Chinese Regulations.
	Keep Dry indicator. **Commonly used for most products** This symbol is usually printed directly on the carton. It is routinely applied to all TGCS finished goods packaging. It is not applied to FRUs, parts, etc. **Important:** ISO-780 Style is Mandatory per Chinese Regulations.
	**This end up.** **Commonly used for most products** This symbol is usually printed directly on the carton, closest to upper left corner of vertical panel This symbol is used routinely to indicate optimum stacking orientation.

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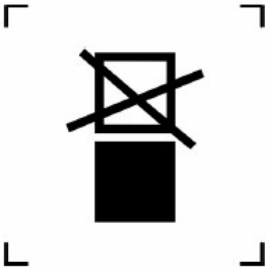
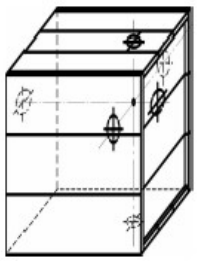
Sample of Symbol	Description and Use
	Stacking - Safe Stack Height. **Commonly used for most products** The number, n, identifies the maximum number of boxes that should be stacked vertically. It is usually printed on the carton. This symbol is required for packages to indicate safe stack height with regard to tipping over or calculated limits of package compression strength. The numeral located in the middle square indicates the number of boxes, **not** the number of pallets in the stack, and includes the bottom carton in the stack. **Important:** ISO-780 Style is Mandatory per Chinese Regulations.
	**Do not stack** **Not** commonly used for most products Stacking of the transport package is not allowed and no load should be placed on the transport package.
  	**Center of Gravity Indicator.** **Not** commonly used for most products These should be used on packages that are top heavy. Four are used - one on each vertical side to indicate the location of the center of gravity of the package. This symbol is required for large crates regardless of height as well as top heavy items such as those for which tilt indicators are applied. If the precise location of the center of gravity for a given item depending on configuration varies, it is permissible to put it as close as possible so that it still conveys the important “off center” or “top heavy” message. This symbol is required by Chinese Law and Standard Practice for Export shipments. They are especially important on all crated items and otherwise any heavy, unwieldy or top heavy items.

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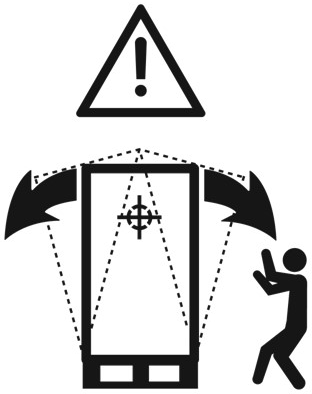
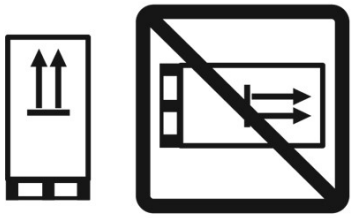
Sample of Symbol	Description and Use
	Proper Forklift Handling **Not** commonly used for most products To indicate the package shall be strapped/secured to the mast when using forklift and tilted to mast To be placed on at least two adjacent sides in upper corner
	**Top Heavy** **Not** commonly used for most products To indicate that the package is top heavy and may tip over easily, and thus become a hazard Place on all four sides in upper portion of package.
	**Do Not Lay Down** **Not** commonly used for most products To indicate product must be kept upright at all times. Do not lay the package down. Place on all four sides of the package.

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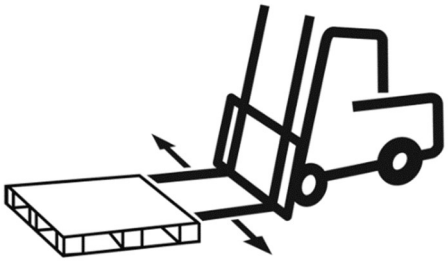
Sample of Symbol	Description and Use
	Ramp Handling Safety **Not** commonly used for most products To indicate importance of handling with at least 3 people while de-palletizing and handling. Place at least on two opposite sides of package
	**Forklift Safety** **Not** commonly used for most products To indicate that the operator is to extend the fork tines to the widest position that will enter the pallet Place on each face of the package that can be accessed by the forklift. Pallet design shown in the icon may be altered to match the actual pallet appearance.

10.4.1.1 *Typical Carton Handling Symbols*

These are the common handling symbols used on many MTM cartons. These are usually printed in black directly on the corrugated carton, but may be on a separate label. In this example, product cartons (not pallets) may be vertically stacked 4 units high.

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10.4.2 Custom Handling Symbols

The symbols in this section should only be used if a satisfactory symbol cannot be found in International Standard ISO-780 or ASTM D5445. See TGCS Product Safety Specification 3ADSAFE0070.

Other Handling Labels	Description
	Safety Alert symbol. **Not** commonly used for most products The Safety Alert symbol is generally followed by the word "DANGER" or "CAUTION" in large bold letters: • DANGER: Applicable to situations with the potential of causing death or serious injury. • CAUTION: Applicable to situations with the potential of causing moderate or minor injury.
 12-18 kg.(26.4-39.7 lbs.)	**Weight warning symbol: Heavy Package (12 – 18 kg)** **Commonly used for products exceeding 12kg** The Weight symbol is comprised of the Safety Alert symbol, followed by the weight range of the box shown in metric and English units (e.g., kilograms and pounds).
 18-32 kg (39.7-70.5 lbs)	**Weight warning symbol: Heavy Package (18 – 32 kg)** **Commonly used for products exceeding 18kg** The Weight symbol is comprised of the Safety Alert symbol and two figures lifting a box, followed by the weight range of the box shown in metric and English units (e.g., kilograms and pounds).

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Other Handling Labels	Description
	Weight warning symbol: Heavy Package (32 – 55 kg) **Not** commonly used for most products The Weight symbol is comprised of the Safety Alert symbol and three figures lifting a box, followed by the weight range of the box shown in metric and English units (e.g., kilograms and pounds).
	Weight warning symbol : Heavy Package (> 55 kg) **Not** commonly used for most products The Weight symbol is comprised of the Safety Alert symbol and a forklift, followed by the weight range of the box, shown in metric and English units (e.g., kilograms and pounds).

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10.4.3 Security Seals and Indicators

Sample of Seal or Indicator	Description and Use
	Tilt Indicator **Not** commonly used for most products The TiltWatch XTR is a mechanical device that monitors whether the package it is attached to has been kept upright all the time, and has not been tilted to a degree of more than approx. 70 degrees. The monitor device is comprised of the tilt indicator itself and a companion label. The indicator must always be applied together with the label. Note: the example shown on the left is the generic TiltWatch (21F9688) and companion label (21F9689) as obtained from the supplier.
	ESD Warning Label. **Commonly used for many products** Label is to be applied to the package component that is providing the ESD protection. Access to the ESD sensitive part must require the user to break this label.

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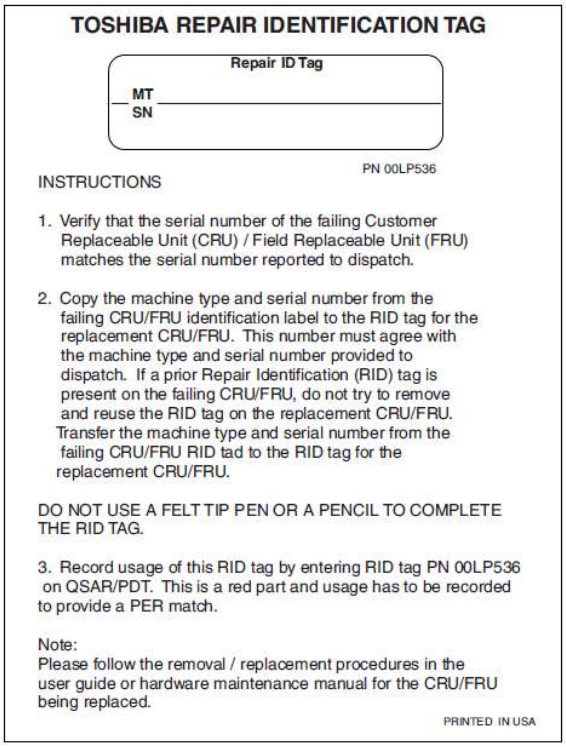
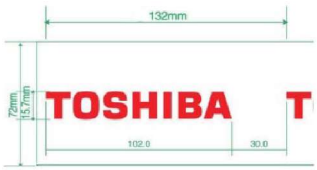
Sample of Seal or Indicator	Description and Use
	'Certified Reutilized Part' label. **Commonly used for CSP FRUs** Permanent, tamper evident CSP (Certified Service Parts) parts and their packages. White printing on blue background is required. Pkg label P/N 45D3078 Small part label P/N 45D3080 Large part label P/N 45D3081
	**Repair ID Tag for MTM-SN** **Commonly used for serialized MTM FRUs** The removable portion of the label is used by Service Technicians to tag a complete element exchange replacement unit with the machine type and serial number of the defective unit. This allows the customer to retain the original MTM & serial number for entitlement purposes. P/N 00LP536
	**Security Tape** **Phasing out, use clear non-logo tape** Toshiba logo MTM carton sealing tape. P/N 3AA01397200

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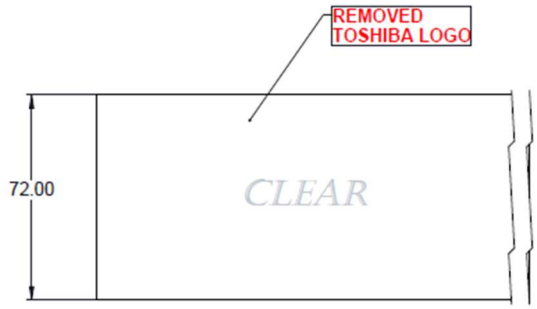
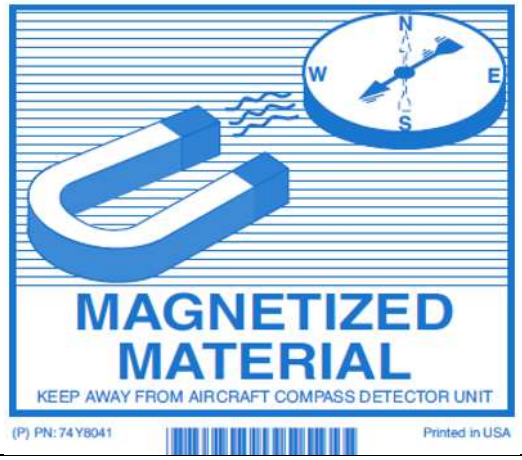
	**Carton Sealing Tape** **P/N** 3AA01458100 (Grade 30/30) **P/N** 3AA01397200 (Grade 60-28)

10.4.4 Warning and Hazard Labels

See TGCS Product Safety Specification 3ADSAFE0070. These labels are typically used only when required as content in a released BoM.

Note: The design of hazard labels are subject to change. Please check with TGCS Engineering that this is still the most current label design. Contact TGCS Engineering if there are questions on use.

Note: The lithium battery labels shown are only for use on TGCS products packed under Section II of the appropriate IATA packing instructions.

Sample of symbol, special label, or attachment	Description
	**Magnetized Material Warning label**. This Magnetized Material Warning is required by IATA/ICAO Dangerous Goods shipping regulations for international air transport. **Note:** this label must be blue as specified on the print P/N 74Y8041 See IATA/ICAO Dangerous Goods Manual

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Sample of symbol, special label, or attachment	Description
	Lithium Metal Batteries Handling Label This lithium metal batteries handling label is required on packages that contain - any quantity of loose lithium metal cells and batteries **Note:** this label must have the red hatch border as specified on the print TGCS Print and Artwork: P/N: 3AA01444400
	Lithium Metal Batteries Installed Or Packed With Equipment Handling Label This lithium metal batteries handling label is required on packages that contain - any quantity of lithium metal cells and batteries packed with equipment. - Equipment that has more than 4 lithium metal cells installed or 2 lithium metal batteries installed. Button cells are exempt from this count. **Note 1:** this label must have the red hatch border as specified on the print **Note 2**: when the individual package does not require the label BUT 2 or more such packages are presented in the same consignment, then ALL the packages with lithium batteries must be labeled. TGCS Print and Artwork: P/N: 3AA01444500

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Sample of symbol, special label, or attachment	Description
	Lithium Ion Batteries Handling Label This lithium ion batteries handling label is required on packages that contain - any quantity of loose lithium ion cells and batteries **Note 1:** this label must have the red hatch border as specified on the print TGCS Print and Artwork P/N : 3AA01444300
	Lithium Ion Batteries Installed Or Packed With Equipment Handling Label This lithium ion batteries handling label is required on packages that contain - any quantity of lithium ion cells and batteries packed with equipment. - Equipment that has more than 4 lithium ion cells installed or 2 lithium ion batteries installed. Button cells are exempt from this count, however lithium ion batteries are not typically button cells. **Note 1:** this label must have the red hatch border as specified on the print **Note 2**: when the individual package does not require the label BUT 2 or more such packages are presented in the same consignment, then ALL the packages with lithium batteries must be labeled. TGCS Print and Artwork P/N : 3AA01444200

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Sample of symbol, special label, or attachment	Description
	Lithium batteries –Cargo Aircraft Only (CAO) label Apply on packages that contain **any quantity** of lithium metal or lithium ion cells or batteries shipped **separately or loose.** On any overpacks or palletized loads that contain packages already marked with the Cargo Aircraft Only label.
	Overpack Label This label is required on the outside of an overpack carton when any packages inside have any Lithium Battery Handling Labels, or the non-spillable battery label (see below). **Note:** the appropriate Lithium Battery Handling Label, and CAO label (if present), or Non-spillable battery label must also be applied to the overpack when this label is used. This label can also be used for any other dangerous goods overpack Print and Artwork P/N 74Y8042.
	Nonspillable Battery Label Used on the outer package of nonspillable lead acid batteries and equipment that is packed with or contains a nonspillable battery. Print and Artwork: P/N 46K5023 For more details see TGCS Engineering Spec. 92F6933

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Sample of symbol, special label, or attachment	Description
Battery Recharge Schedule Date representation: YYYY-MM-DD Date next recharge or recycling is due: Date last recharged: **Recharge:**_____ _____ **Recharge:**_____ _____ **Recycle:** _____	**'Battery Recharge Schedule' label** Used only when part contains a rechargeable battery. Note this label may have location variances in format, which is acceptable providing the content is similar. See Appendix C on page 102 for detailed instructions on completing this label.

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11 CSP FRU Repair ID Barcode Label

11.1 Scope

This section provides the data format and content for a RID (Repair Identification) Barcode Label to be applied to TGCS FRU parts that have been in service, removed, and subsequently processed through a repair, test, and inspection process to be reutilized as Certified Service Parts. See section 10.4.3 for Service applied MTM SN RID tags applied to element exchange FRUs during customer service.

New FRU parts purchased from OEM/ODM suppliers are excluded from this requirement. These new parts will be labelled compliant with applicable sections of this guide and related standards.

The RID Barcode Label is applied to both the physical FRU and the FRU package, and the RID must also be human readable. The data shall be encoded in Code 39 and compliant to section 1.4 on page 7.

11.2 Supplier Responsibilities

a) Ensure that the labeling requirements are complied with consistently for all FRU/Spare parts shipped to TGCS whether internally or by vendors performing work for them.
b) Ensure that the information that appears on the label reflects the data elements specified by this guide.
c) Procure and/or modify the necessary equipment (printers and software) to meet the labeling requirements, using existing equipment where possible to reduce costs.
d) Remove any preexisting RID barcode labels from the FRU before placing a new RID barcode label barcode on both the FRU and the FRU package.
e) Ensure that the OEM/ODM 11S barcode label remains permanently on the FRU.
f) Placement of the label must not adversely affect the function of the FRU, but be clearly visible.

Note: When there is limited or restricted space on the FRU, suppliers must use their best judgment and must be consistent in ensuring that the barcode label is accurate, legible and scannable. Contact TGCS if there are specific concerns.

11.3 Data Elements

11.3.1 Content & Format

Fixed Asset ID Header			TGCS Part Number 7 or 11 character											Country Code		Vendor Code		2 Digit Year		2 Digit Week		Part Type	Sequence Number		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
5	2	S	P	P	P	P	P	P	P	P	P	P	P	C	C	V	V	Y	Y	W	W	T	S	S	S

Table 12 RID Label Content & Format

a) Positions 1-3 are fixed
b) Positions 4-10 or 4-14 is the 7 or 11 character TGCS FRU P/N. If 11 character, subsequent positions decrement by 4
c) Position 15 and 16 is the ISO 3166 country code
d) Position 17 and 18 is the Vendor ID number provided by Procurement
e) Position 19 and 20 is the current 2 digit year
f) Position 21 and 22 is the current week number of the year
g) Position 23 is the part type code (see below)
h) Positions 24-26 is an incremental sequence number, 1=999th piece done that week, - if more than 999, use Ann through ZZZ

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Part Type (New, CSP, NDF, OEM, Used) Values:

C = TGCS Certified Spare Part (CSP), the most common type
D = Screening, No Defect Found (NDF), or NDF tested part only for Out of Warranty (OOW) parts
L = Multi-Vendor / OEM - CSP Part
M = Multi-Vendor / OEM - New Part
P = Multi-Vendor / OEM - Used Part
N = TGCS New Part
U = TGCS Used Part
W = Screening, NDF, or NDF tested part only for Warranty parts (WAR)

Suppliers should contact their SPO (Service Parts Organization) representative for guidance on the part types if unclear.

11.3.2 52S Bar Code

Data Identifier: 52S
Value after identifier: ppppppppssssssssssss (**7 character P**/N, 12 character part S/N) -
-OR-
Value after identifier: pppppppppppppssssssssssss (**11 character P/N**, 12 character part S/N)
Title: (52S) RID: ppppppppssssssssssss (7 character P/N example)
Do not imbed blanks or other separators
Example of encoded data: *52S08L1020USAC1652C054* (22 characters using 7 character P/N example). Do not encode spaces. The long length of this bar code (22 or 26 characters plus Start/Stop) means special care should be to assure that the height is at least 15% of the length.

11.3.2.1 *Example RID Tag*

TGCS CSP Part Number 08L1020 repaired by the Acme Corporation, located in the United States, in Week # 52 of the year 2016, and this parts is the fifty fourth CSP part from the supplier process for that particular week. The RID label applied to the part and carton would be….

Position	Data Segment	Description
1 to 3	52S	Fixed Data Identifier specifying a repaired part
4 to 10	08L1020	Part Number
11 to 12	US	United States as Supplier's Country of Residence
13 to 14	AC	Supplier Code for the Acme Corporation
15 to 18	1652	Week # 52 of the Year 2016
19	C	TGCS CSP Part
20 to 22	054	The 54th CSP P/N 08L1020 repaired in week 1652

Note: For an 11 digit P/N, the part number field would be from position 4 through 14, and subsequent field positions would increase incrementally.

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A. Data Identifiers

A data identifier is a prefix used in a bar code to identify how the rest of the bar code is to be interpreted. The following table lists the prefixes (i.e. data identifiers) for the most common data elements used by TGCS.

Data Identifier	Data in the bar code to the right of the Data Identifier
12D	Date in ISO yyyy-mm-dd format.
J	License plate number. This uniquely identifies the shipping container or box.
1J	License plate number for an unbreakable case.
2J	License plate number for a transport unit containing multiple packages.
K	Customer Purchase Order Number
1K	TGCS plant order number
9K	Used to represent a different type of TGCS order number (e.g. SAP-F order number) other than the standard TGCS plant order number (See 1K above).
16K	Used to represent a “delivery” number that references a document containing delivery information.
4L	Country of Origin (two alphabetic characters) code as per the ISO 3166 list of country codes
P	Customer Assigned Part Number (aka "SKU"). For parts consumed in TGCS manufacturing and service parts (FRUs), the P data identifier should be used to identify the TGCS part number, because in those situations TGCS is the customer. It is also used on the shipping label if TGCS customers assign a unique part number for finished goods (see 1P below).
1P	Supplier Assigned part number. For parts or finished goods shipped to TGCS customers, the 1P should be used to identify the TGCS part number or TGCS Machine type, model.
2P	TGCS engineering change level
Q	Quantity (pieces)
S	Serial Number
1S	Used with finished goods; represents the concatenated TGCS part number (7 or 11 characters) and serial number (7 characters) or TGCS machine type (4 characters), model (3 characters), and serial number (7 characters)
9S	Identifies a unique case number used to identify unit loads or pallets of parts, publications, or cases containing multiple machines or unique packages.
11S	Used with serialized parts / component consumed in manufacturing operations. Defined as the (concatenated) TGCS part number (7 or 11 characters) and serial number (12 characters)
23S	Machine Media Access Control (MAC) Address conforming to IEEE 802.11

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B. Glossary

Term	Definition
ANSI	American National Standards Institute (ANSI) is a group of technical individuals from various companies that develop standards that are recognized throughout North America. Several committees and subcommittees focus on unique items of concern. EDI is one of them. TGCS has adopted the ASC X12 format for all EDI business transactions that are used between trading partners within the US.
AOD	Advice of Delivery. This is a synonym for “Delivery Notice”.
ASC X12	The Accredited Standards Committee (ASC X12) was authorized by the American National Standards Institute (ANSI) to develop national standards for exchanging business transactions between computers.
Bar	The darker, non-reflective element of a bar code.
Bar code	A predetermined pattern of bars and spaces that represent numeric or alphanumeric information in machine-readable form. Bar codes are also referred to as linear or one-dimensional symbology.
Bar code title	Human readable text that is required to appear above a bar code. It must consist of a data identifier (in parentheses) and a description. See 5.1, “Guidelines for Bar Code Printing.
Bi-Directional	A bar code that permits reading in either direction across the bars and spaces.
Bill of Lading	The document issued for a carrier to identify quantity and description of the goods being shipped, the shipper, the consignee, and the points of loading and discharge.
Case Number	A TGCS unique alphanumeric identification that identifies a transport unit.
CEA	Consumer Electronics Association
Character	A letter, digit, or special symbol that is used as a part of the representation or control of data.
COA	Certificate of Authenticity. A label applied by T1 suppliers that identifies genuine Microsoft Windows software has been installed.
Code 3 of 9 (aka Code 39)	A bar code symbology where each "character" consists of nine consecutive alternating black and white vertical bars. Three of each nine consecutive bars are thick. The other six are thin.
Compliance Indicator	A symbol that indicates compliance with certain country specified electrical safety requirements. It is affixed to the product and is often affixed to the product package label for the product.
Country of Origin or CoO	The country of production, manufacture or growth of an article, part, subassembly, or product. It is the country where the article obtained its present identity as a part, subassembly or finished product. An article must be **substantially transformed** in a new country in order for the country of origin to change. An article's country of origin is the country in which the last substantial transformation occurred.
Customer Assigned Part Number	A part number that has been provided by the customer at order entry time. A maximum of one per order is supported by TGCS. This data element is also referred to as the "SKU" or "Stock Keeping Unit".

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Term	Definition
Customer Purchase Order Number	A purchase order number that has been provided by the customer at order entry time.
CVP	Customization Verification Program. The TGCS test suite that manages, tests, and verifies late stage product customization at T1 suppliers. .
Data Identifier or DI	Data Identifier – a prefix used in a bar code to identify how the rest of the bar code is to be interpreted. A short list of the more common data identifiers appears in appendix A of this volume.
Direct Thermal Printer	A printer that operates by selectively heating dots on special heat sensitive paper. The paper turns dark in the heated areas.
EAN	International Article Number. This is the European counterpart to the U.S.'s UPC symbol.
EDI	Electronic Data Interchange is the inter-enterprise process by which trading partners exchange data of business transactions in a standard syntax and other types of information between computer systems with little or no manual intervention.
Element	A generic term used to refer to either a barcode bar or space.
EMC	Electromagnetic Compatibility
EMEA	TGCS acronym for Europe, Middle East, and Africa.
ESO	External Sales Order, the 8 digit Oracle sales order number
FACT	Federation of Automated Coding Technology (FACT) was an inter-industry organization that developed and oversaw the assignment of data identifiers. TGCS has adopted the use of these data identifiers in their manufacturing and distribution operations.
FBM	Feature Bill of Material. See MFI.
Feature code	TGCS nomenclature used by some TGCS sites for ordering "features" on a particular product.
FFC	Fulfillment Center performing late stage customization and TGCS customer order fulfillment
FRU	Field Replaceable Unit. A FRU is a spare part that can be replaced in the field.
GTIN	Global Trade Item Number. 14 digit EAN, JAN or UPC. Allows to distinguish an article on its packaging levels
HR, HRI, Human Readable Interpretation	Human readable interpretation of the content of a bar code minus the data identifier and start/stop characters.
HS Code	The international Harmonized System based Schedule B (HS) for the classification of physical goods for import and export. Typically a 10-digit number that describes the article.
Impact printer	A printer that operates by pressing an ink ribbon against paper. This type of printer is not recommended for printing bar codes.
Interpretation field	The interpretation field represents human readable character-by-character representation of exactly what is inside the bar code, not including data identifiers or start/stop characters. The

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Term	Definition
	interpretation field should be above the barcode.
ISO	International Organization for Standardization
ISO	Internal Order Number used in TGCS in-house manufacturing and for intra company sales between different country organizational units.
LPN License Plate Number	A worldwide (across all companies) unique alphanumeric identification for a transport unit.
MTM	Machine Type Model- Nomenclature used by TGCS to identify a serialized product finished goods. Machine Types are 4 numeric characters. Models are 3 alphanumeric characters.
Media	The underlying surface on which the bar code is printed.
MES	Miscellaneous Equipment Specification. This kit of parts is used as spares, or to upgrade a machine.
MFI	Manufacturing Feature Index – a bill of material for an orderable feature or item. MFI bills of material typically do not have physical content themselves, but SMUs within the MFI will.
NDF	No Defect Found in testing field parts removed for repair and reutilization.
NMFTA	National Motor Freight Traffic Association
Overpack	Packaging material that encloses more than one part, or a complete order or product. The contained products may be different or the same type.
Packing List	This document identifies the contents of a pallet or case. This may relate to a case of multiple, different items, or to a single machine, describing the details of its configuration.
PCBA	Printed Circuit Board Assembly
Point size	Identifies the size of text. Point size is the height of a font from its lowest descender (e.g. the bottom of a small "g") to its highest ascender (e.g. the top of a capital "A"). One point = 1/72 inch (0.728 mm). Example: A 16-point font equals a distance of 16/72 inch (0.222 inch or 5.64 mm) between the bottom of a small "g" and the top of a capital "A".
Proof of Delivery	A 'Proof of Delivery' is a document that summarizes all items in a shipment to a customer at a certain delivery and which is intended to be signed by the customer at the bottom of the document to proof he has received the items.
Quiet Zone	A clear space, containing no dark marks, which precedes the start character of a symbol and follows the stop characters.
Reader	A device used for machine reading of bar codes. It typically consists of a scanner, decoder, and data communication interface.
Resolution	The minimum element width that can be accurately scanned by a scanner consisting of an optical system digitizing circuit.
RID	Repair Identification label

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Term	Definition
RPQ	Request for Price Quotation - a product or service that is potentially available, but not part of the standard product feature offering. Typical RPQs include hardware modifications, BIOS/firmware, packaging, labelling, etc.
SCAC code	Standard Carrier Alpha Code. A SCAC is a unique NMFTA identifier for a carrier.
Scanner	An optical and electronic device that scans bar code/2D symbols and outputs serial time data that corresponds to the widths of the bars and spaces.
Shipset	Eight digit Oracle order number plus the two digit ship set number
SMU	Shippable Manufacturing Unit. A part or subassembly at the purchased or shipping level. One or more SMUs will be the physical content required by an MFI.
Start-Stop Character or Pattern	A special bar code character that provides the scanner with start and stop reading instructions as well as scanning direction. The start character is normally at the left end of a horizontally oriented symbol. The stop character is normally at the right end.
Stock Keeping Unit	See "Customer Assigned Part Number" and SKU.
Space	The lighter, reflective, element of the bar code.
Symbology	Variations of bar codes and 2D symbols. Each variation is called a "symbology". Each symbology has its own rules that govern which configuration of bars represents which alphabetic, numeric, or other character. Examples are Code 3 of 9, Code 128, PDF417 and MaxiCode.
Syntax	The way in which data is put together to form messages. Syntax also includes rules governing the use of appropriate identifiers, delimiters, separator character(s), and other non-data characters within the message.
T1	Tier 1 fulfillment supplier that receives product from T2+ suppliers for TGCS customer order customization and fulfillment.
T2-n	Tier 2 and higher suppliers provide product to other TGCS suppliers. Tier 1 is the highest level (fulfillment) – T(n) is the lowest.
Thermal Transfer printer	A printer that operates by melting ink from a mylar ribbon onto paper.
TIN	Tracking Identification Number. This is a 19-character data element for a component that consists of the seven or eleven character TGCS part number followed by the 12-character serial number of the component. In bar code format, it is preceded by a data identifier of "11S".
Transport Package	A package intended for transportation and handling of one or more machines, articles, smaller packages or other bulk material.
Transport Unit	Either a unit load or transport package. Examples are a case and a pallet.
UCC	Uniform Code Council. This is the central code management agency responsible for administering the UPC numbering system.
Unit Load	One or more transport packages or other items held together by means such as a pallet, strapping, stretch wrap, etc. making them suitable for transport, stacking and storage as a unit.

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Term	Definition
UPC	Universal Product Code is the number assigned to products that are distributed and sold through retail dealer networks in North America.
UN/EDIFACT	United Nations Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT) is a technical group that is responsible for defining and developing international standards for EDI. The intention of this group is to define standards that will be used internationally between trading partners. TGCS is also participating in this activity.
Verifier	A device that makes measurements of the bars, spaces, quiet zones, and optical characteristics of a symbol to determine if the symbol meets the requirements of a specification or standard.
Voids	Unintentionally light areas in the bar code symbol caused by printing errors.
X Dimension	The intended width of the narrow elements dictated by the application and/or symbology specification.
2D	"Two dimensional" symbology. This symbology is rectangular in appearance. This symbology differs from the traditional "1D" (one-dimensional) bar code in that as many as one thousand characters can be encoded in one 2D symbol. Special scanners are needed to read 2D symbols.

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C. Rechargeable Batteries Labelling Instruction

Machines, SMUs, or FRUs that contain or are standalone rechargeable batteries, Uninterruptible Power Supplies (UPS), or Integrated Battery Features (IBFs) must be recharged according to a recharge process specification and battery recharge schedule. The specification will vary by battery type and P/N. The recharge schedule is determined by the battery manufacturer and normally allows for a maximum number of recharge cycles, after which they are recycled. The 'Recycle' date is used as a guideline for removal from stock and proper disposal.

To monitor and control the recharge process a 'Battery Recharge Schedule' label must be applied to the part package. The size of the label must be such that the print is legible. Minimum font size to be 8 point Arial sans serif or similar.

Note: There may be some Battery PNs where the supplier or TGCS may approve more than two recharges. In those cases, the label below should be adjusted accordingly to accommodate the additional allowable recharge cycles.

Each recharge must be documented by filling in the appropriate date on the appropriate line of the 'Battery Recharge Schedule' label. Alternatively, printing a new label with added dates and using it to cover the prior label is allowed.

Note: there are rechargeable batteries that are not to be recharged while they are in stock. Those batteries will not get a 'Battery Recharge Schedule' label, but will just show an expiration date on the package label.

Battery Recharge Schedule

Date representation: YYYY-MM-DD

Date next recharge or recycling is due:	Date last recharged:
Recharge:_____	_____
Recharge:_____	_____
Recycle: _____	

Completion of the 'Battery Recharge Schedule' label must follow these requirements;

a) The initial label must be applied by the battery/UPS supplier to T1 supplier or TGCS.

b) The label must be applied in close proximity to the part package label.

c) The battery supplier must include the date of first recharge in the column 'Date next recharge is due', but should leave all other dates blank.

d) The recharge vendor or T1 supplier must add the 'Date of last recharge' and the corresponding 'Date next recharge is due' based on the battery specifications provided by TGCS.

e) The recharge vendor or T1 supplier must add the recycle date after the final recharge.

f) The dates must be stamped or legibly hand written on the label in the corresponding fields using the specified date format, i.e. yyyy-mm-dd.

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The example below shows the flow of the recharge process labelling, assuming a battery approved for two recharge cycles, six months apart.

Battery Recharge Schedule

Date representation: YYYY-MM-DD

Date next recharge or recycling is due	Date last recharged
Recharge: 2015-08-15	_____
Recharge: _____	_____
Recycle: _____	

Initial Battery Recharge Schedule label applied by the battery/UPS supplier – next recharge is six months after first charge

Battery Recharge Schedule

Date representation: YYYY-MM-DD

Date next recharge or recycling is due	Date last recharged
Recharge: 2015-08-15	**2015-08-22**
Recharge: 2016-02-22	_____
Recycle: _____	

Label after first recharge

Battery Recharge Schedule

Date representation: YYYY-MM-DD

Date next recharge or recycling is due	Date last recharged
Recharge: 2015-08-15	2015-08-22
Recharge: 2016-02-22	**2016-02-27**
Recycle: 2016-08-27	

Label after second recharge

Note 1: dates shown in **bold** represent those that have been added in that process step

Note 2: the recharge cycle shown in the example is based on a six-month shelf life between recharges, with a maximum of two recharges. This can vary by battery part number.

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D. References and Standards

TGCS Documents

The following standards and reference documents are available from TGCS. If there is contention in the reference documents and this guide, contact TGCS Procurement or Engineering for resolution.

- 3ADMECH1001 Country of Origin Labeling for Products, Sub-assemblies and Parts
- 3ADMECH1002 Product Definitions and Serial Numbering
- 3ADLABEL001 Automatic Identification for Packaging, Distribution and Manufacturing
- 3ADLABEL002 TGCS 11S barcode 2-digit codes for supplier locations
- 3ADMECH1003 Compliance, Power and Certification Labels on Products
- 3AD00534500 Toshiba Website Pointer
- 16F5050 FRU (Field Replaceable Unit) Packaging Requirements
- C-S 1-1120-000 Graphics, Basic Packaging
- GA21-9261 Packaging and Handling Supplier and Interplant Requirements

External Documents

The following documents are useful references and are available from their publishers. Note the TGCS specifications will take precedence over these references. Contact the TGCS Procurement for resolution if necessary.

- ISO Standards
  - ISO 3166 Country Codes

    Note: For the complete and current list, see http://www.iso.org/iso/country_codes
  - ISO 15394 Packaging - Bar Code and Two-dimensional Symbols for Shipping, Transport, and Receiving Labels
  - ISO/IEC 15417 Bar Code Symbology Specification - Code 128
  - ISO/IEC 15418 GS1 Application Identifiers and ASC MH10 Data Identifiers and maintenance
  - ISO/IEC 15434 Syntax for High Capacity ADC Media
  - ISO/IEC 15438 International Symbology Specification - PDF417 bar code symbology specification
  - ISO/IEC 16022 International Symbology Specification - Data Matrix bar code symbology specification
  - ISO/IEC 16023 International Symbology Specification - MaxiCode
  - ISO/IEC 16388 Code 39 Bar Code Symbology and Specification
- ANS MH 10.8.2 Data Identifier and Application Identifier Standard
- EAN.UCC General Specifications whenever a GTIN (UPC, EAN or JAN Code) is to be applied.
- Labeling Guidelines of the U.S. based CEA (Consumer Electronics Association):
  - CEA 621-A : Product and Packaging Bar Code Standard

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- CEA 624-A : Product Packaging Standard
- CEA 556-B : Outer Shipping Container Label Standard
- CEA 706-A : Component Marking Standard
- CEA 802-A : Product Marking Standard

• EDIFICE documents

- Implementation Guideline for Product Package Labels
- Transport Label Implementation Guidelines
- License Plate Implementation Guidelines

• Global Electronics Guidelines for Bar Code and 2-D Marking of Products and Packages in Conjunction with EDI

• Official Journal of the European Union, REGULATION (EU) 2019/2013

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E. Common ISO 3166 Codes

Below are some of the country codes commonly used by TGCS and its suppliers. This is not a comprehensive list.

NOTE: It is the supplier's responsibility to consult ISO 3166 and TGCS Standard 3ADMECH1001 and mark product country of origin appropriately.

Country	Code	Country	Code
Argentina	AR	Malaysia	MY
Australia	AU	Mexico	MX
Austria	AT	Netherlands	NL
Bangladesh	BD	New Zealand	NZ
Belgium	BE	Norway	NO
Bhutan	BT	Philippines	PH
Brazil	BR	Poland	PL
Canada	CA	Portugal	PT
Chile	CL	Puerto Rico	PR
China	CN	Romania	RO
Croatia	HR	Russian Federation	RU
Denmark	DK	Serbia	RS
France	FR	Singapore	SG
Germany	DE	Slovakia	SK
Hong Kong	HK	Slovenia	SI
Hungary	HU	Spain	ES
India	IN	Sweden	SE
Indonesia	ID	Switzerland	CH
Ireland	IE	Taiwan, Province of China	TW
Israel	IL	Thailand	TH
Italy	IT	Ukraine	UA
Japan	JP	United Kingdom	GB
Korea (Republic of)	KR	United States of America	US
		Viet Nam	VN

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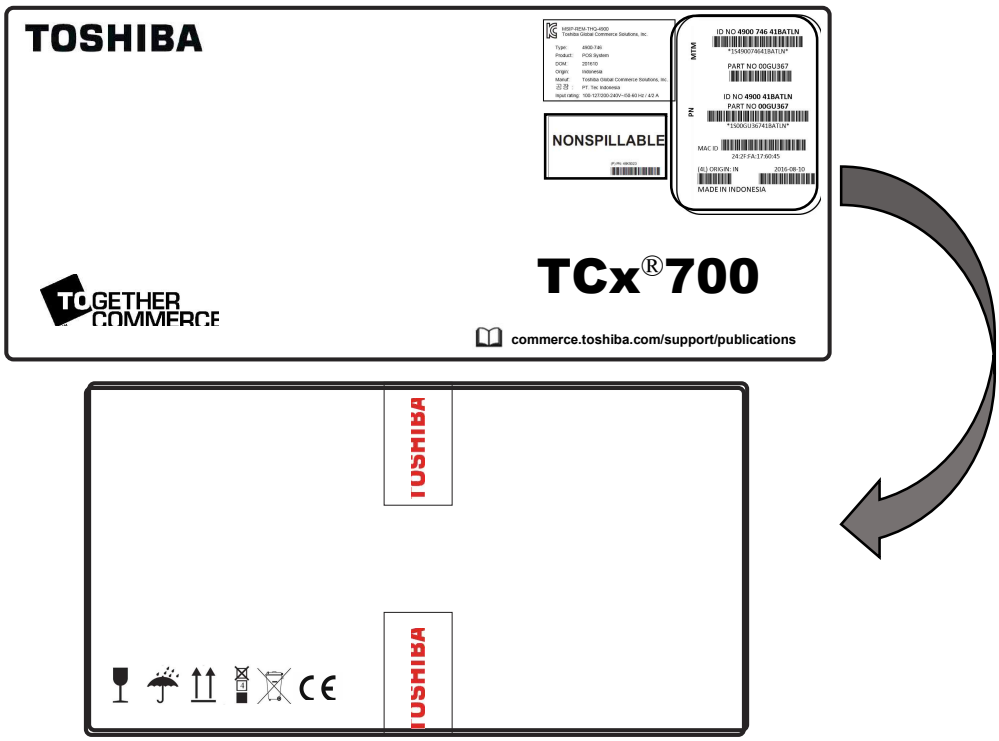
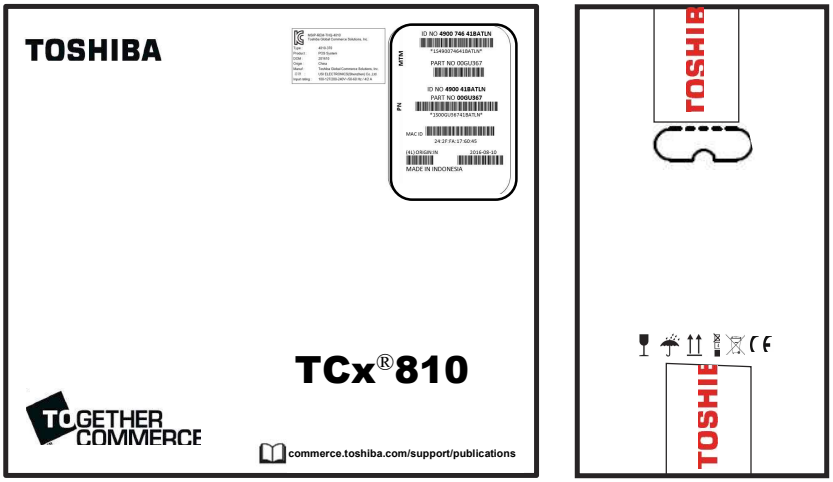
F. Example MTM Cartons

Note that these two examples are illustrations of how a typical carton might appear. Actual product carton design, layout, and required labelling will differ from these examples and must be approved by TGCS Engineering.





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G. Revision History

Date	Revision Level	Changes
2017-04-18	REV 000	Initial Release
2020-02-20	REV 001	Update order number format, remove 7 character FRU Reference number, minor updates and edits
2020-06-10	REV 002	Minor updates and edits
2021-02-16	REV 003	Added Section 11.1 Energy Labeling and updated website
2021-04-20	REV 004	Correct section headings (no content changes)
2023-03-31	REV 005	Corrected symbols & S/N format, add T2 Packing list section, misc minor edits
2023-06-12	REV 006	Add registration symbol (®) to TCx brand
2023-07-14	REV 007	Update to require only one label only carton rather than two

END OF DOCUMENT

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