Texas Instruments Supplier Packing and Labeling Manual For Global Shipping

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TI Information - Selective Disclosure
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1.1 **Scope**
This manual defines the minimum general requirements for the preparation, packing, and labeling of all parts, subassemblies, products, materials, and equipment which will be shipped to any Texas Instruments Incorporated facility.

1.2 **Responsibility**
It will be the responsibility of Texas Instruments Incorporated and its subsidiaries (TI) to define a preferred packing system, approve the packing plan, and monitor for compliance assurance to Texas Instruments Incorporated requirements. It will be the responsibility of the supplier to:

1. Ensure their packing and labeling methods and materials comply with all applicable laws and regulations that may supersede these requirements.
2. Ensure shipments are economically packed and palletized.
3. Ensure shipment containers and contents are suitably packaged to guard from damages.
4. Ensure export shipments are packed, labeled, and marked as defined by this manual.

1.3 **Application**
Adherence to the requirements of this manual is necessary to minimize shipping damage, reduce costs, and streamline TI's receiving process.

Special packing specifications called out on a request or purchase order (PO) will take precedence over this specification if they are in conflict.

1.4 **Communication**
All supplier's questions, communications, and exception requests are to be coordinated through the TI Category Procurement personnel (buyers).

1.5 **Compliance**
Compliance to the TI packing requirements, safety guidelines, and legal regulations contained in this manual will be enforced as a condition of purchase per TI purchase contracts. TI reserves the right to:

1. Reject and return any shipments that are improperly packed or identified.
2. Charge the supplier for costs of labor and materials for any repacking resulting from non-compliance with this manual or other direction referenced on the PO.
3. Remove from its list of approved supplier sources any supplier that, after notice, repeatedly fails to comply with Texas Instruments Inc. packing requirements.
4. Any shipper requiring deviation from requirements contained in this specification must receive written authorization from the TI Category Procurement personnel prior to shipment.
5. Require a barcode be placed on the box, otherwise a packing slip of approved non-conforming shipments must be noted with the contact phone number of the authorizing TI Commodity Procurement personnel including the date of authorization.

2.1 **General**
1. Packing should provide protection from (a) dust/dirt (particles contamination where appropriate),
2. Different part numbers are not to be packed in the same intermediate packing container unless it is clearly identified on the package label.
3. Boxes should be of sufficient strength to allow stacking during shipment and storage. Do not use normal envelopes as shipping containers.
4. All packages should be minimum 6750 cubic centimeters (Example: 30cm x 15cm x 15cm) in size, approved exceptions are envelopes using letter services.
5. Crates, wirebound boxes, and expendable wooden containers should not be used unless corrugated containers do not provide enough protection.

2.2 Closure
1. Use pressure sensitive film tape or reinforced gummed tape for corrugated containers. Tape must be at least 2 inches (5cm) wide.
2. Use strapping or reusable wire brackets for wooden crate/containers.
3. Use strapping / banding for half slotted, telescoping or sleeve & cap containers.
4. Never use staples to close any type of carton, container, or bag.

2.3 Dunnage
1. Use corrugated inserts and dividers as applicable.
2. Select the right size of container for the parts to minimize dunnage.
3. Do not use oversized cartons with excessive dunnage.

2.4 Unit Load Size and Capacity Requirements

<table>
<thead>
<tr>
<th>Load Height Maximum:</th>
<th>72 inches (182.5cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Weight Maximum:</td>
<td>910 kg (2000 lbs) for a full pallet.</td>
</tr>
<tr>
<td></td>
<td>455 kg (1000 lbs) for a half pallet.</td>
</tr>
</tbody>
</table>

Width Exceptions: Packages greater than 97in. wide require a four-way pallet.

Important: Pallet overhang is not allowed. Packages in excess of 27kg (60lbs) must be palletized.

*Note: Pallet height and width may vary depending on mode of transportation.
*Note: For country-specific requirements see Section 8

2.5 Wafer/Silicon packing requirements

2.5.1 Individual wafer boxes should be sealed, stacked up following correct orientation with the arrow pointing upside.
2.5.2 There should be a label to indicate contents is fragile.
2.5.3 There should be a label to indicate no stacking.
Fig. 1

Fig. 2

"Do Not Stack" Stencil
3.1 General
1. Pallets must be manufactured of a material sufficient to sustain integrity during expected multiple transportation handlings (ie wood, metal, HDPE plastic, etc; corrugated cardboard is not acceptable).
2. Wood pallets must comply with ISPM 15 requirements and marked appropriately.
3. Palletized shipments must be built in cubic, stackable loads and occupy at least 80% of the pallet surface unless an individual package is greater than 27kg (60 lbs).
4. Palletize multiple PO’s of one part number on a single pallet.
5. Remember, do not:
   (a) mix production and non-production materials unless it is labeled as such
   (b) haystack/pyramid stack containers on a pallet (see following page)
   (c) allow overhang on palletized shipments (where load exceeds pallet dimensions)

3.2 Stretch Wrap
1. Recommend start with properly adjusted machine which pre-stretches the film.
2. If possible, use 2-way banding before stretch wrapping.
3. Tie the stretch wrap to the pallet directly and cover all corners.
4. Use the “roping technique” – bunching the stretch films full width to create a rope. Stretch film roping is extremely strong and is often used to further secure a pallet to its load. Bunching stretch film is a feature function of many stretch wrap machines (ex: turntable stretch wrappers) especially around the base.

3.3 Banding / Strapping (where applicable)
1. Use polyester banding – at least 13mm (0.50 in.) wide and 0.5mm (0.020 in.) thick.
2. Use steel banding for loads over 363kg (800lbs).
3. Use crimp or heat seal banding closures.
4. Use 2-way banding plus stretch wrap.
5. Use the banding notches (not the fork notch) for cross bands on stringer pallets.
6. Use angleboard-style corner board edge protectors under all bands.

3.4 Special Labeling Instructions
1. When multiple cartons are shipped on a pallet (without a Unit Load shipper), at least one of the labeled sides of each carton must face an exterior edge of the pallet.
2. The carton that contains the packing slip must be located on the top layer of cartons with the packing slip facing an exterior edge of the pallet.
3. If the packing slip is enclosed within one of the palletized cartons, the carton must be located on the top layer and identified (1 of total #)
4. Any labeling that is applied by the Carrier must not be placed over top of the content labels that are applied by the supplier.

3.5 Pallet Size Requirements
Industry standard pallets are required for all palletized parts shipments. Acceptable pallet dimensions are:
- 42 inches (106cm) wide x 42 inches (106cm) deep
- 40 inches (101cm) wide x 48 inches (122cm) deep

Contact TI Category Procurement personnel for authorization to deviate from acceptable standard pallet dimensions.
3.6 Packing Illustrations

**GOOD CONSTRUCTION**

1. Stringer Tile Pallet
2. Unit Loads Which Exceed the Pallet Footprint (Overhang)
3. European Block Tile Pallet
4. Pallet Board which does NOT Support Weight.
5. Fork Clearance > 85mm Fork Entry Unobstructed
6. Insufficient Clearance Obstructed Entry

**POOR**

Do **NOT** Pyramid/Haystack
7. Pallets With Bottom Deckboards That Allow Pallet Stacking Without Deformation Of Underlying Board.

8. Pallets Which Stack In An Unsafe Manner Or Cause The Underlying Load To Be Deformed.

9. Proper Construction of Main Load Bearing Members (Strings, Runners, Blocks).

10. Improper or Dangerous Attachment of Load Bearing Members.

11. Construction Which Do Not Survive Average Handling (I.e. Plastic Donuts)
Texas Instruments  
Semiconductor Operations

<table>
<thead>
<tr>
<th>GOOD</th>
<th>UNITIZATION TECHNIQUES</th>
<th>POOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Multiple-sized Containers Consolidated in Unit Load Shippers.</td>
<td>13. Loads Made From Multiple-Sized Containers.</td>
<td></td>
</tr>
<tr>
<td>14. Steel Banding For Heavy Loads (Over 800 lb) or Polyester Strapping For Loads Less Than 800 lb with Proper Use of Corner Protectors.</td>
<td>15. NO Strapping or Strapping Pulled Through Containers.</td>
<td></td>
</tr>
<tr>
<td>18. 4-Way Strapping on U.S. Pallets Which Makes Proper Use of the Strapping Notch.</td>
<td>Stretch Wrap which Deforms Load.</td>
<td></td>
</tr>
</tbody>
</table>
19. Unit Load Heights are 78" for Cargo Aircraft; 72" for Passenger Aircraft. Note: It's Best to Design for Passenger Air Because This Will Fit In Any Aircraft.

Unit Load Heights which are >78”.

Unit Loads which Exceed the Pallet Footprint (overhang)

20. Unit Loads Made From Modular Or Similar Sized Product Containers Which Fill The Pallet Footprint.

21. Unit Loads Made From Multi-sized Containers NOT Inside Unit Load Shippers.

22. Multi-sized Containers Consolidated In Unit Load Shippers.
### GOOD Palletization Techniques

24. Multiple Pallet Loads Used to Optimize Cube in Air/Ocean Containers.

26. Containers Which Simply Do Not Fit Well in Standard Size Power packs or Pallets Are Then Placed in Custom Sized Pallets That Match the Size of the Load. (Should Review With Receiving Station)

28. Containers That Weigh >60 lb Use A Standard Half Pallet and Palletized On a Modular-sized 2-Way or 4-Way Entry Shipping Pallet.

30. Single Container with Unique Case Number Which Weigh < 60 lb and is NOT Palletized.

### POOR Techniques

23. Pallet Loads Which DO NOT Provide a Flat Top Surface For Stacking Purposes. This is Shown as Haystacking.

NOTE: Odd or extra containers should ship stand alone/loose.

25. Non-modular Packages Which Fit Poorly on Standard Power packs or Pallets Resulting In Poor Pallet Utilization.

27. Palletize Containers That weigh < 60 lb

29. Container Without Pallets Weighing >60 lb. Unless Special Arrangements Are Made With The Carrier and Receiving Location.
3.7 Wafer/silicon packing requirements.

3.7.1 Silicon wafer shipments shall be shipped in a cube. If there are empty spaces, the supplier shall use empty boxes to allow complete cube shipments.

3.7.2 Wafer/Silicon shipments should be palletized, corner guards on top and four sides, shrink wrapped and 4-way strap to the pallet/skid. The use of ‘Do not stack cones’ are highly encourage to prevent stacking of shipments inside the truck. Please refer to the picture below.

![Palletized Wafer Shipments](image)

Fig. 3

3.7.3 TI transportation forwarder/carrier will inspect material prior to loading into the truck. Any damage seen on the wafer shipment by the transportation forwarder will be documented and refused.

3.7.4 Damage shipment will be communicated to the silicon supplier for further investigation.
3.7.4 TI encourage the use of hand jack or fork lift with a short blade to load the wafer shipment into the truck. This is to eliminate long fork blades from puncturing wafer shipments during loading and staging.

3.7.5 Suppliers shall use recyclable containers for wafer shipment to eliminate breaking down the skid which requires additional handling on US outbound due to Homeland Security's requirement. This packing method helps prevent wafer damages.

3.7.6 Over pack or recyclable container shall fit inside a standard 40 x 48 inches pallet. Please refer to the figure below.

Fig. 5

3.7.7 For International shipments the pallet size allowed for wafer shipment into the universal loading device (ULD 2) is 40 inches (101cm) wide x 48 inches (122cm) deep. The other ULD commonly used for International shipments is ULD 3 which can accommodate a pallet with a maximum dimension of 53 x 43 inches.
3.7.8 Another device for loading shipment is ‘cookie sheet’ which is a flat metal where shipments are consolidated. This type of shipment is usually implemented on Freighter planes. A picture of completed ‘cookie sheet’ is shown below:

![Fig 6](image_url)

### 4 - Marking and Labeling

#### 4.1 General
1. Use machine generated labels if possible. Do **not** hand write information if avoidable. Machine generated labels must be legible, indelible, and permanent.
2. Use waterproof ink or clear acetate tape to protect handwritten information.
3. Use tags, stamps, or pre-printed cartons in place of labels where appropriate.
4. Do **not** obscure/cover labels with non-clear tape or banding.
5. Do **not** leave old labels on re-usable containers.

**Cartons / Boxes:**
1. Mark the carton with the country of origin if required
2. Do **not** use labels less than 25mm x 75mm (1” x 3”)

**Unit Loads:**
1. Mark with country of origin if required.
2. Mark with “mixed” or “multi” if more than one country of origin is packed inside.
4. Do **not** use labels less than 50mm x 100mm (2” x 4”)
5. Do **not** allow staples securing labels to protrude from wooden crate.

#### 4.2 Labeling Requirements
1. Every box needs to be labeled individually even if they are palletized. Receiving and storage of materials requires incoming loads to be easily identified.
2. The “Ship From” Address should be placed on the top left & “Ship To” address on the top right of ship carton label.

#### 4.3 External Barcode Generation & Information
1. An external barcode should be used on all shipments inbound to TI, as it is easy to produce and lowers the risk of human error regarding box labeling. 
   a. If your company does not have barcode technology, you may utilize the barcode print capability (Barcode generator) found at the following web site in order to print conforming barcode labels: [http://wpl.ext.ti.com/barcode/barcode.htm](http://wpl.ext.ti.com/barcode/barcode.htm) 
   b. Use of the web Barcode generator tool to print the barcodes may be browser specific and may not work with all browsers. TI recommends using browser Internet Explorer 6.0 or greater.
   c. An example barcode label is shown below. This can be used as a pictorial reference for the below external bar code requirements.

2. Recommended label size is 4 inches x 6.5 inches (10.2cm x 16.5cm) 
   a. Requirements are that the label is human readable and fits on the package.
   b. Human readable text may be placed either above or below the barcode.
   c. Be aware that text placed too close to either side of a barcode might violate the quiet zone required for the barcode to be reliably read.

3. Labels should be affixed to the package OR contained within a pouch on the package, but not both.
   a. **Option 1**: One label should be included for each part number/line item shipped. (ie if five boxes are sent with the same PO line item/part number then one label with the total quantity is required on the lead box or shrink-wrapped shipment).
   b. **Option 2**: The supplier may have a separate barcode label that identifies the quantity that is in each individual box, but not the total quantity of the shipment on each box.

4. The barcode symbology can be either code 39 and/or code 128 for encoding Data Identifiers (DIs). **Please note the DI must be part of the encoded barcode.**
5. The requirements have been derived from the Consumer Electronics Association (CEA) as CEA-556-C, Outer Shipping Container Label Standard, the primary governing standards document.
   a. The complete CEA-556-C document can be obtained online as follows: IHS/Global Website @ global.ihs.com, or by calling 1-877-413-5184 to order via phone.

4.4 External Barcode Data Requirements
1. There are three options that can be used for the data contained on the barcode label. The following data is required to be contained on the barcode label, based on the option. They are listed in order of preference from a TI perspective.
   a. Option 3 should only be used when there is absolutely no way to provide the information in options 1 or 2; e.g. when an item is ordered by description (there is no TI Part Number) and the line item number of the TI PO is unknown.
2. The following table provides more details about each of the fields contained on the label. Do not mix field labels and data on the bar code. Examples: a) If the field label says “Quantity” then data displayed must be the quantity. B) If the field label says “Batch”, then the data displayed must be the batch information.

<table>
<thead>
<tr>
<th>Field</th>
<th>DI</th>
<th>Length</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO/Line</td>
<td>14K or K</td>
<td>PO = 10 Line = Max 5</td>
<td>This is the TI PO and line item number. The PO number is required. A TI PO line item number should be provided if possible. The PO line item is required as it specifies exactly the item that TI ordered. The line item is separated from the PO number by a “+” (plus) sign. This allows automatic reading of the PO and the line item by the receiving barcode software. If option #2 or #3 are used, a data identifier of K may be substituted for 14K, if limitations exist on the supplier's barcoding software. Note: Depending upon the PO, the line item may be a single digit or multiple digits. Do not make the assumption that the first item on the PO has a line item of 1.</td>
</tr>
<tr>
<td>TI Part Number</td>
<td>P</td>
<td>7-4 format 12 chars total</td>
<td>This is the TI part number that is specified on the PO, if any. Optional if a line item is provided. The part number is used to look up the line item number on the PO. The TI part number format is 7-4 numeric digits with 0 padding, e.g. 4030040-0001.</td>
</tr>
</tbody>
</table>
| Quantity         | Q  | Max 17          | The shipment must be sent in the same unit of measure as was
specified on the PO. This is to remove the complications associated with receipt of an item that is in a different unit of measure, as dock personnel do not open packages to check or count the contents.

<table>
<thead>
<tr>
<th>Delivery Note</th>
<th>11K or 1P</th>
<th>Max 16</th>
<th>The Delivery Note is a number such as the Packing List Number, Invoice Number or other Reference Number that is used to identify the supplier’s shipment. It is used during ERS (Evaluated Receipt Settlement) to “pay on receipt” of the item. This is important as it allows the supplier to be paid in as short a time as possible.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Date</td>
<td>16D</td>
<td>8</td>
<td>Production date is requested (not required) to be included in the barcode in the format YYYYMMDD. This is only requested for batch controlled materials (e.g. those items with a shelf life).</td>
</tr>
<tr>
<td>Description</td>
<td>None</td>
<td>Max 80</td>
<td>A description of the item. It is required when there is no line item and no TI Part Number. It is used by the dock personnel to manually match up to items on the PO in order to determine the PO line item number.</td>
</tr>
<tr>
<td>Package Count</td>
<td>None</td>
<td></td>
<td>This field contains the package count “Box 1 of n.”</td>
</tr>
<tr>
<td>Package Weight</td>
<td>None</td>
<td></td>
<td>This field contains the package gross weight in both metric (i.e. kg) and English (i.e. lbs) units.</td>
</tr>
</tbody>
</table>


1. All direct materials shipping to any TI Assembly Test (A/T) site are required to comply to the internal barcode label requirements per Table 1.0 below. Do not mix labels and data on the bar code (i.e., if the label says “Quantity” then data displayed must be the quantity).

<table>
<thead>
<tr>
<th>Barcode Requirement</th>
<th>All Substrates</th>
<th>Leadframe</th>
<th>Epoxy</th>
<th>Die Coating</th>
<th>Au Wire</th>
<th>Cu Wire</th>
<th>Mold Cmpd</th>
<th>Solder ball</th>
<th>Solder Paste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part number</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Supplier lot# (Batch number)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Expiration date</td>
<td>Y</td>
<td>NB</td>
<td>Y</td>
<td>Y</td>
<td>NB</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Manufacturing date</td>
<td>NB</td>
<td>Y</td>
<td>NB</td>
<td>NB</td>
<td>NB</td>
<td>NB</td>
<td>NB</td>
<td>NB</td>
<td>NB</td>
</tr>
</tbody>
</table>
Table 1.0 – Internal Barcode Requirements Table

<table>
<thead>
<tr>
<th>Legend</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>- Printed image and barcode required</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td>- Printed image required but barcode is optional. If barcode is included, need to follow the specification requirement/s. For Quantity format requirement refer to section 4.5.9 below.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB</td>
<td>- Printed image and barcode not required. If barcode is included, need to follow the internal barcode specification requirement/s.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. The use of an internal barcode is also highly recommended when shipping raw materials to non-A/T sites in order to identify batch issues more promptly.

2. Internal barcode labels should use Code 39.
3. Internal barcode labels should not exceed 6cm in length.
4. Internal barcode labels will have the decoded value located either directly below or directly above the barcode.
5. For the TI Parts Number barcode, the revision letter should not be incorporated in the same barcode as the part number. The revision letter may be added after the part number on the printed image but should NOT be included in the Part Number barcode.
   a. Format: AAAAAAA-BBBB
   b. Description: 12-character length including the dash (-) between the 7th and the 8th characters. Characters A and B are both NUMERIC
   c. Data Example: 4205205-0010
   d. Label Sample: *4205205-0010*
6. The Part Number printed image is requested to be emphasized with larger fonts as compared to the rest for better visibility. The largest possible font is preferred.

7. Supplier's Lot Number format requirement
   a. Format: "LN" + Supplier lot number
   b. Description: Variable length with the prefix "LN" and supplier lot number is alphanumeric characters
   c. Data Example: LNS07010390

   d. Label Sample: *LNS07010390*

8. Expiration and Manufacturing Date/s format requirement
   a. Format: MM/DD/YYYY
   b. Description: 10-character total length including the slash (/)
      i. MM = 2 character length indicating the month
      ii. DD = 2 character length indicating the day
      iii. YYYY = 4 character length indicating the year
   c. Data Example: 06/20/2007

   d. Label Sample: *06/20/2007*

9. Quantity format requirement
   a. Format: "QY" + quantity
   b. Description: Variable length with QY prefix; quantity is NUMERIC character and no space between QY and the quantity value. Barcode result should not have comma or k (as 1000). The printed image or text can have a full quantity value, may include ‘comma’ or k (as 1000) for better human readability.
c. Data Example:

d. Printed image – QY3000000 or QY3,000,000 or QY3,000k

e. Barcode label result – QY3000000

10. Barcode requirement for Cu wire spool ID

a. Format: “LN” + Supplier lot number + “-“ + serial number

b. Description: Variable length with the prefix “LN” and Supplier lot number is alphanumeric character plus the spool serial number. The spool serial number should not be repeated for the same supplier lot number regardless of different shipment timing.

c. Example: Suppose the supplier lot number is H7671041

   *Shipment 1*
   
   Spool 1 lot no = LNH7671041-001
   Spool 2 lot no = LNH7671041-002
   Spool 3 lot no = LNH7671041-003

   *Shipment 2* (Shipment 2 CANNOT repeat shipment 1 lot number)
   
   Spool 1 lot no = LNH7671041-004
   Spool 2 lot no = LNH7671041-005

11. Barcode requirement for Substrates

a. The quantity must have the prefix “QY”

<table>
<thead>
<tr>
<th>Actual Quantity</th>
<th>Barcode result</th>
<th>Printed Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,000</td>
<td>QY3000</td>
<td>QY3000, QY3,000,000</td>
</tr>
<tr>
<td>3</td>
<td>QY3 (not QY003, QY03)</td>
<td>QY3</td>
</tr>
</tbody>
</table>

12. Coffin ID

a. Format: “DN” + Supplier lot number + Suffix

b. Description: Maximum length is 15 characters including the prefix and suffix. The suffix is incremented based on the coffin #

<table>
<thead>
<tr>
<th>Coffin #</th>
<th>Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AA</td>
</tr>
<tr>
<td>2</td>
<td>AB</td>
</tr>
<tr>
<td>3</td>
<td>AC</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>AZ</td>
</tr>
<tr>
<td>27</td>
<td>BA</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6 Box Numbering

1. When dealing with multiple boxes, each box should be individually numbered as a section of the total (i.e. If there are 12 total boxes, each box will be identified 1 of 12, 2 of 12…11 of 12, 12 of 12).

5 - Packing List

5.1 General

One legible packing list, preferably machine-generated, is required for each shipment, or one packing list is required for each case number, except when shipping multiple cases of the same part number.

All packing lists must contain the following information:

1. Shipper's name and full address (including country if export)
2. TI part number(s) in numerical sequence and Export Control number (if applicable)
3. PO Number (if applicable)
4. Notify Party
5. Receiving location's name and full address
6. Number and type of pieces shipped
7. Cargo gross weight (kilograms)
8. Description of material (clear descriptions that are not vague or including industry jargon)
9. Ship date
10. Container number and seal number (if applicable)
11. Supplier packing list number (if applicable)
12. A duplicate of the barcoded shipment label
13. Country of origin (as defined on page & origin)
14. UN code for dangerous goods (where applicable)

5.2 Packing List Placement
1. It is highly recommended that the packing list is placed on the outside of a container or pallet load – it must be attached to a vertical side, near the top, but not on top and securely affix with a transparent envelope or tape so the packing list is visible and protected from damage.
2. If the packing list is placed inside the container – only under circumstances that the packing list on the exterior has a relatively high risk of being lost during transport – that container must be identified with a “Packing List Enclosed” label or marking which is easily seen; place in container 1.
3. Place all paperwork/documents (e.g. certificate of compliance, certificate of approval, etc) in the same envelope as the packing list. NOTE: Documents may also require electronic submission per TI purchasing requirements.
<table>
<thead>
<tr>
<th>Revision</th>
<th>Description</th>
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<tbody>
<tr>
<td>A</td>
<td>ECO #2101846, M. Murray, 10/02/09, Steve Yager: Formal release</td>
</tr>
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<td>B</td>
<td>ECO #2111234, M. Murray, 11/03/10, S. Yager/Chris Durant; Minor clarifications within capital equipment crating section, Revised Sec 6.1.10, Removed Sec 6.6 Ocean Shipment Procedures per standalone document release, and added 6-12 month and &gt;12 month # of desiccant units to chart in Sec 6.3</td>
</tr>
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<td>C</td>
<td>ECO #2115882, M. Murray, 05/16/11, S. Yager: 1) TI Branded formatting added, 2) Added minimum package size under Sec 2.4, 3) Removed unnecessary contents header 6.6, 4) Revised packing list requirements under Sec 5.1, 5) Removed verbage, “Loads Which Provide a Flush Top Surface By Assembling Empty Cartons” on page 9, 6) Sec 4.4.2 – Production Date notes edited to be a request vs requirement, 7) Sec 4.4.2 – Delivery Note data identifier now allows “1K” or “1P”, 8) Sec 4.5.6 revised to read “requested to” instead of “should be”, 9) Sec 2.4 and Diagrams – Palletize shipments &gt;27kgs or 60lbs, 10) Sec 3.1.1 added – Pallet material requirements, 11) Sec 3.5 – Revised acceptable standard pallet dimensions, 12) Sec 6.1.6 – Defined crate floating base thickness and material requirements, 13) Sec 6.5 – Crating Compliance Checklist and diagram added</td>
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<td>D</td>
<td>ECO #2118624, M. Murray, 09/14/11, S. Yager – Add Sec 6.5 Crating Compliance Checklist, Update wording throughout document</td>
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<td>E</td>
<td>ECO #2121817, 01/25/12, M. Murray, Steve Yager ; 1) Index updated, 2) Sec 2.1.4 minimum size shipments updated, 3) Added Sec 6.5, “Factory Loading” of ocean container by shipper, 4) Sec 4.4 package “gross” weight, 5) Sec 7, Added Global Lithium Ion Battery shipment requirements, 6) Revised Crating Compliance Checklist on page 23 &amp; 24</td>
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<td>F</td>
<td>ECO #2125590, 06/29/12, M. Murray, Mark Boado; Revision Crating Compliance Checklist comprehending additional 2 parameters.</td>
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<td>G</td>
<td>ECO #2135077, 08/05/13, M. Murray, Barbara Daniels; Added clarifications to sections 2.1.4, 4.4.2 and 4.5.1.</td>
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<td>H</td>
<td>ECO #2137565, 11/13/13, M. Murray, Chris Durant; 1) Update desiccant requirements in Section 6.3, 2) Update Section 7</td>
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<td>I</td>
<td>ECO #2150273, 4/18/15, MJ Esteban, Perry Shields: add parag 2.5, 3.7</td>
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<td>J</td>
<td>ECO #2156089, 02/16/16, Chris Durant; Update Sections 6.1.9 through 6.1.17, 6.2.1 through 6.2.3 and Crating Compliance Checklist on sheet 30</td>
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<td>K</td>
<td>ECO #2157836, 04/29/16, W. Nisperos, remove equipment crating section.</td>
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