### Packaging Information for Vendors

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<th>Nomenclature</th>
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<td>General Vendor Packaging</td>
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**Instructions:** Sheet No. 1 of 4

This specification is provided to inform vendors of Raytheon Systems Company's minimum packaging requirements. This document is superseded by any special requirements listed on drawings or specifications. Any questions concerning packaging or materials should be directed to the buyer referenced on the purchase order.

A). **Packaging and Preservation:**

A 1). Packaging of supplies and equipment exclusive of ammunition, explosives, hazardous materials, tape and reel components and Plastic Encapsulated Microcircuits (PEMs):

This vendor shall follow ASTM-3951 (Standard Practice for Commercial Packaging) with the exception of Items A 2). and A 3). that follows:

A 2). Packaging, handling, and marking of the Plastic Encapsulated Microcircuits (PEMS) shall be in accordance with:

**JOINT INDUSTRY STANDARD, IPC/JEDEC J-STD-033**

Major categories (but not limited to) J-bend and gull-wing leaded packages such as: Plastic Leaded Chip Carriers (PLCC's), Small Outline Integrated Circuits (SOIC's), Plastic Quad Flat Packs (PQFP's), and Thin Small Outline Packages (TSOP's).

A 3). Packaging of Tape and Reel Components

The requirement for tape and reeling of components will be determined by the appearance of Quality Note 84 (QN084) on the purchase requisition. QN084 instructions will provide tape & reel specifications. However, the tape & reeled lot is to be packaged (overpacked) for shipment in accordance with ASTM-3951.

A 4). Packaging of Hazardous Materials:

The vendor will assure that packaging containing or intended to contain designated hazardous materials will be properly tested (performance oriented packaging) and certified as complying with the performance standards of the United Nations and the Department of Transportation:

- International Civil Aviation Organization
- International Air Transport Association (Section 10)
- International Maritime Organization (Volume 1, Annex 1, Sec. 8)
- Code of Federal Regulations: Title 49

A 5). Static Sensitive devices shall be packaged in compliance with ASTM D 3951 and use only packaging materials that will protect the part from electrostatic damage and corrosion during long-term storage & in-plant handling.
A 6). Plated items such as Nickel, Gold, Silver and Tin shall be handled with cotton gloves, finger cots or vacuum lift devices. Plated items that are ESD sensitive shall be handled with static sensitive finger cot's or treated gloves.

Instructions:

B). Shipping Containers:
Containers shall be packed to insure carrier acceptance, safe delivery and adequate storage at buyers location. Containers shall be in accordance with the rules and regulations of carrier applicable to the mode of transportation. Containers shall be domestic and a minimum size to provide a snug fit for the item. Containers shall conform to one of the following specifications (commercial equivalents may be used in place of MIL-Specs referenced):

* ASTM-D5118: boxes, shipping, fiberboard
* ASTM-D5168: boxes, fiber, corr., triple wall
PPP-B-601: boxes, wood nails and lock corner (covers should be closed with wood screws
MIL-C-52950: crates, wood open and covered or klimp fasteners for ease of uncrating.)
PPP-B-591: boxes, fiberboard, wood cleated

NOTE: The container selected shall be in accordance with the weight and dimensions established by the specifications of each container for the specific style, type, class, grade, size and variety used.

* Rule 41: Raytheon insists on strict compliance with rail classification Rule 41 as minimum requirements of fiberboard containers (regarding weight and size limitations).

B). 2 Skid Requirements
All shipping containers exceeding the gross weight of two hundred and fifty (250#) lbs. shall be provided with skids made from 4"x 4" nominal lumber.

C). Markings (Ref. A.3)

C). 1 Marking shall be in accordance with carrier rules and regulations. Hazardous materials or restrictive items must be properly marked per D.O.T. (Department of Transportation).
C). 1.1. U.N. markings for hazardous materials: exterior shipping packages (shipping cartons) shall be marked with U.N. certification markings indicating the level of performance achieved through testing. For interior packaging such as cans and bottles, a certificate of compliance or actual test reports indicating the level of performance achieved through testing must be provided. (Ref. A 3. above).

C). 1.2. Magnetic and electrostatic sensitive items must be properly marked, labeled or stenciled with proper cautionary information.

C). 2. Bar Code Requirements:

Exterior containers shall be marked in accordance with Raytheon bar code shipping label, specification dated October 25, 1993. A copy may be obtained through Purchasing or MQE.

C). 3. Minimum Carton Marking:

Minimum carton marking in addition to hazardous materials marking (if applicable) shall be in accordance with MIL-STD-129 and ASTM D3951 Section 5.1.6:

1). Customer part no.(#)
2). Nomenclature
3). Purchase order number
4). Quantity
5). Manufacturer's name
6). Electrical value (when applicable)
7). Date code (when applicable)
8). Labels: antistatic, fragile, magnetic (when applicable)
9). Lot control (when applicable)
10). Serialization (when applicable)
C). 4. **Packing Slips:**
- All applicable information from section C.3. must be listed on packaging slips.
- Packing slips must be applied to all exterior containers.
- Vendors shipping more than one purchase order or purchase order item, must package each order and line item separately.
- When over-packaging materials from various purchase orders in one container, the container must indicate the various purchase orders inside.

C). 5. **Lot Control and Serialization:**

When serialization or lot control, requirements are specified on the purchase order or drawing, the unit, intermediate and exterior shipping container shall be marked with the applicable control numbers in accordance with MIL-STD-129. The lot control or serial numbers shall be preceded by the proper designation (example: Lot A023, Serial Number 15790). All serial numbers of the items within a container shall appear in container markings.

C). 6. **Date Code:**

When date code requirements are specified on the drawing, related documentation, Q-note or procuring document: The supplier shall apply a four digit numeric identifier on the unit, intermediate and exterior containers signifying the calendar year and week on which the shipment of the items were accepted at suppliers final inspection. The date of seal may be used if applicable.

Example:

First shipment = Date Code = 9750: indicates during the 50th week of the year 1997.
Second shipment = Date Code = 9803: indicates during the 3rd week of the year 1998.

**NOTE:** MIXING OF DATE CODES FOR IDENTICAL ITEMS IN THE SAME UNIT CONTAINER IS NOT ALLOWED. HOWEVER, MIXING OF TWO OR MORE UNIT PACKS OF IDENTICAL ITEMS MARKED WITH DIFFERENT DATE CODES INTO THE SAME INTERMEDIATE OR EXTERIOR SHIPPING CONTAINER IS ACCEPTABLE ONLY IF THE EARLIEST DATE CODE IS MARKED ON THE INTERMEDIATE AND EXTERIOR PACKAGE.