# LMSC PACKAGING STANDARD

## SPECIAL PACKAGE FOR MULTILAYER MATRIX MODULES

## 1.0 SCOPE

This standard provides methods for the individual packaging of multilayer matrix boards in a rigid, clear, plastic box.

## 2.0 REFERENCES

- 2.1 Lockheed General Packaging Standard LPS 40-001
- 2.2 NAS Packaging Standard 3427

## 3.0 REQUIREMENTS

- 3.1 GENERAL
  - 3.1.1 Each matrix board shall be packaged by one of the illustrated methods. Nonmechanical mounting is the <u>preferred</u> method (Figure 3, Figure 4, and Figure 5).
  - 3.1.2 Regardless of the type of package used, all protruding pins shall be protected from distortion, bending or degradation by the method used to retain the boards within the plastic box.
  - 3.1.3 Adequate clearances shall be maintained between the pins and the box to prevent damage during handling, shipment or storage, and to permit ease of insertion or removal of the board from the box. Minimum top/bottom clearance shall not be less than 1/4 inch, or less than 3/4 inch between the pins and the sides or ends of the box.

## 3.2.4 Block Design Applications

<u>Type 1 Designs</u> (Figure 3, or Figure 4) shall employ four separate blocks of polyethylene cushion material (Paragraph 5.0), slotted to accommodate the matrix board at four unobstructed areas of the board. Slots provided shall be "snug" fitting to assure adherence to the board when the entire assembly (blocks and board) are removed from the box.

<u>Type 2 Design</u> (Figure 5) shall employ two separate blocks of polyethylene cushion material, slotted to accommodate the matrix board at two unobstructed areas of the board. Because of the limited available areas to retain the board, only two blocks are used.

**NOTE**: Blocks may be mitered, notched or otherwise altered to accommodate irregular board configurations without damaging the pins. Block designs shall fit the inside cavity of each box sufficiently to prevent undue movement.

#### 3.3 INTERMEDIATE PACKAGING

- 3.3.1 Pack any number of unit packages uniformly in fiberboard containers.
- 3.3.2 Fill all voids with suitable dunnage blocking or bracing to prevent damage during handling/shipment.

#### 3.4 PACKING

- 3.4.1 Pack any number of intermediate containers uniformly into each shipping container.
- 3.4.2 Shipping containers as packed, shall protect each item and package during ordinary handling and shipping and shall meet the minimum requirements of the common carriers for acceptance for safe transportation at the lowest rate to the point of delivery.
- 3.4.3 Intermediate containers which meet the requirements of Paragraph 3.4.2 may be used as shipping containers.
- 3.4.4 Enclose or attach a copy of packing slip to the shipping container.

#### 3.5 MARKING

- 3.5.1 <u>Unit Package Marking</u> Label or mark each package to show at least the part number per contracting document and supplier identity. If this data is readily visible and <u>legible</u> on each part inside the unopened container, the labeling or marking requirements is waived. Additional markings may be specified in the item detail specification or drawing.
- 3.5.2 <u>Intermediate Packaging Marking</u> Label or mark each container to, at least, show part number per contracting document, supplier and quantity of parts.
- 3.5.3 <u>Shipping Container Marking</u> Label or mark each container to show part number per contracting document, the LMSC contracting document number, supplier, destination and quantity of parts.
- 3.5.4 Special, precautionary and handling markings shall be applied as required.

### 4.0 QUALITY ASSURANCE

4.1 Packaging shall be accomplished in such a manner as to prevent physical damage to, or degradation of, the packaged items during delivery to the using activity. It shall be the prerogative of LMSC to return damaged items, at supplier's expense, when such damage is attributable to improper or inadequate protection.

#### 5.0 NOTES

5.1 The following information is intended as a guide or aid to suppliers in meeting requirements of this specification:

## 5.1.1 <u>Material Specifications</u> (Nonmechanical Mounting)

Material MIL-Spec

Expanded Polyethylene MIL–C–46842 (approx 2 lb density)

## 5.1.2 <u>Unit Package Sources</u> (Plastic Boxes)

Supplier



