
SPECIAL CARRIER PACKAGE FOR 40 – 60 LEAD FLAT PACK SUBSTRATES ASSEMBLIES

1.0 SCOPE

This standard provides for the individual packaging of 40– or 60–lead substrate assemblies (flat–packs) in a special carrier to facilitate automated handling and testing.

2.0 REFERENCES

2.1 Lockheed Packaging Standard LPS 40–001

3.0 REQUIREMENTS

3.1 GENERAL

3.1.1 The quantity per unit package shall be one (1) each.

3.1.2 Substrate assemblies shall be properly oriented in each carrier. The No. 1 lead shall coincide with the correct slot on the carrier. (See Figure 1).

CAUTION: ALL DEVICES SHALL BE HANDLED CAREFULLY TO AVOID DEFORMATION OF THE LEADS. EVIDENCE OF BENT OR MISALIGNED LEADS, OR OTHER TYPES OF DEFECTS, MAY RESULT IN REJECTION AND RETURN OF DEFECTIVE DEVICES TO THE SUPPLIER.

3.1.3 Devices improperly oriented, mounted or otherwise handled/packaged contrary to this standard shall be subject to rejection.

3.1.4 Devices with exposed silver–plated surfaces shall be protected with tarnish–inhibitor material. Minimum surface area of the tarnish inhibitor shall be twice the area of the silver surface of the item.

NOTE: The treated side of the inhibitor must be facing the item(s).

3.1.5 When lot number identity is required, shipments of devices from different lots shall not be intermixed within the same intermediate package(s).

3.1.6 Devices sensitive to damage from electrostatic charges shall be protected by using appropriate conductive carriers.

3.2 UNIT PACKAGING

3.2.1 Substrate Assemblies – Insert one device in each carrier. Assure that the device is properly oriented in the carrier per Paragraph 3.1.2 and that the retainer clip and acrylic cover are used. (See Table 1 .)

3.3 INTERMEDIATE PACKAGING

3.3.1 Insert up to 25 unit–packaged devices in a folding, setup, or clear plastic box. Arrange packages uniformly and fill voids with neutral dunnage material to prevent movement.

NOTE: Other methods/materials may be used for intermediate packages providing that other requirements of this standard are met and such action does not result in any additional cost to LMSC.

If blister strips are used, do not fold over or bend.

3.3.2 Devices having exposed silver–plated surfaces shall be protected by tarnish inhibitor.

3.4 PACKING

3.4.1 Pack intermediate packages uniformly into shipping container(s); include adequate dunnage to protect the items during handling/shipment.

3.4.2 Do not fold over or bend blister strip(s) for packing.

3.4.3 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.

3.4.4 Enclose or attach a copy of packaging slip to the shipping container.

3.5 MARKING

3.5.1 Unit Package Marking – Two levels of marking are required as follows:

3.5.1.1 When the carrier is used as a unit package for incomplete parts, such as substrates, only the part number, supplier’s serial number and lot number are required. Location of the marking will be in accordance with the contracting document.

3.5.1.2 When the carrier is used for finished parts, part marking will be per the drawing, and shall be located so that it appears in open areas of the carrier clip.

3.5.2 Intermediate Package Marking – Label or mark each intermediate package to show at least the part number per contracting document, quantity and supplier identity. Packages containing tarnish inhibitor shall be marked/labeled: “Protected with Tarnish Inhibitor – Do Not Open Until Ready for Use or Inspection.” Additional markings may be specified in the item detail specification or drawing.

3.5.3 Shipping Container Marking 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, e.g., “Contents Sensitive to Electrostatic Damage.”

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 5.0 NOTES

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

5.2 Carriers are normally reusable/recyclable.

5.3 This standard provides minimum protection of devices specified in the procurement document, during shipment from supplier to LMSC to facilitate automated test/inspection functions. Unless otherwise specified, when a conflict exists between the packaging provisions of this standard and a detail item specification/drawing referenced in a contractual document, the packaging requirements imposing a higher level of protection (long term storage, unique preservation/packaging, etc.), the requirements of the applicable specification/drawing shall take precedence.

5.3.1 DEFINITION – Unprotected Silver Surfaces. All metallic silver surfaces (having stringent reflectivity or conductivity requirements, close-tolerance finishes and/or dimensions, without supplementary tarnish-resistant treatment), the deterioration of which may result in premature failure or malfunction of the item or equipment having such surfaces.

6.0 REFERENCES

6.1 Federal Specification QQ-S-365, “Silver Plating, Electrodeposited; General Requirements for”

6.2 Tarnish Inhibitor Source – Daubert Chemical Co., Oakbrook, IL (Trade Name “Silver-Saver”)

Table 1					
CARRIER IDENTITY – FLAT PACK DEVICE					
Number of Leads	Device Body Size	Carrier Assy No.	Clip No.	Cover No.	Body No.
40	1.00 x 1.00	6911950-501	6911951	6911952	6911953
50	0.75 x 1.50	6911950-501	6911951	6911952	6911953

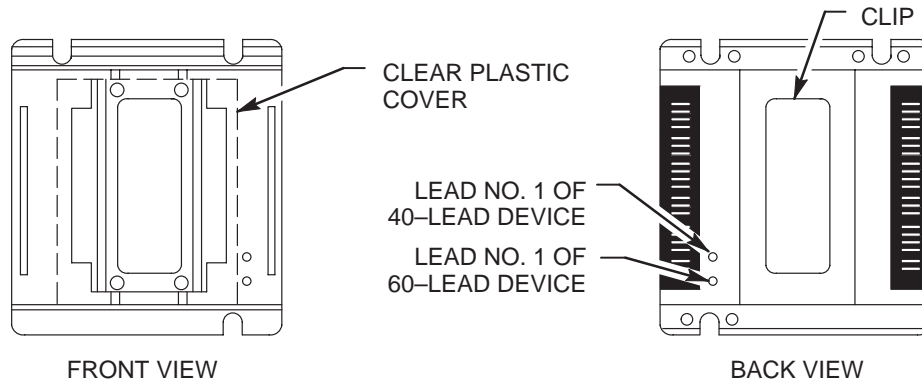


Figure 1. 40/60 Lead Carrier