

TITLE: ELECTROSTATIC DISCHARGE (ESD) PROTECTIVE PACKAGING AND MARKING FOR ESD SENSITIVE (ESDS) ITEMS (I.E. ESDS STANDARD ELECTRONIC MODULES, PC CARDS/BOARDS, ELECTRONIC SUBASSEMBLIES AND ELECTRONIC PARTS) AND FOR EQUIPMENT CONTAINING ESDS ITEMS (I.E. METAL RACKS, CABINETS OR OTHER CONNECTORIZED ENCLOSURES).

A. ESDS ITEMS (ESDS STANDARD ELECTRONIC MODULES, PC CARDS/BOARDS, ELECTRONIC SUBASSEMBLIES AND ELECTRONIC PARTS)

1. SHALL BE INDIVIDUALLY (UNIT) PACKAGED IN A TRANSPARENT MULTI-LAYER PROTECTIVE BAG OR WRAP, HAVING AN INNER LAYER PREVENTING STATIC CHARGE BUILD-UP AND AN OUTER LAYER OF CONDUCTIVE METALLIC-COATED MATERIAL TO PROTECT AGAINST EXTERNAL STATIC FIELDS AND CHARGES.
2. SHALL HAVE AN ESD SYMBOL (EIA RS 471, MIL-STD-129P, MIL-STD-129J, OR ANSI ESD S8.1 - 2001) AND AN ESD CAUTION NOTE ATTACHED TO THE OUTSIDE OF THE UNIT PACK. AN ESD SYMBOL LABEL SHALL BE LOCATED ON THE OUTSIDE OF EACH PACKAGING LAYER.
3. SHALL HAVE PROTECTIVE PACKAGING THAT IS FREE OF TEARS, SPLITS, HOLES, STAPLES OR OTHER DISCONTINUITIES.
4. SHALL HAVE THE PART NUMBER CLEARLY MARKED ON THE OUTSIDE OF THE PROTECTIVE TRANSPARENT UNIT BAG OR WRAP.
5. SHALL BE CLEARLY IDENTIFIED AS ESDS ON SHIPPING DOCUMENTS, PACKING LISTS, BILLS OF LADING, ETC.

B. EQUIPMENT CONTAINING ESDS ITEMS (METAL RACKS, CABINETS OR OTHER CONNECTORIZED ENCLOSURES)

1. SHALL HAVE AN ESD SYMBOL (EIA RS 471, MIL-STD-129P, MIL-STD-129J, OR ANSI ESD S8.1 - 2001) AND AN ESD CAUTION NOTE (SUCH AS "CAUTION, CONTAINS PARTS AND ASSEMBLIES SUSCEPTIBLE TO DAMAGE BY ELECTROSTATIC DISCHARGE") ATTACHED TO THE UPPER LEFT OR RIGHT FRONT CORNER, UNLESS OTHERWISE SPECIFIED ON THE EQUIPMENT ASSEMBLY DRAWING.
2. SHALL HAVE ESD SYMBOL LABELS ON THE OUTSIDE OF EACH PACKAGING LAYER.
3. SHALL HAVE CONDUCTIVE COVERS (I.E. CAP PLUGS, OR A SECTION OF ESD PROTECTIVE CONDUCTIVE OR STATIC DISSIPATIVE MATERIAL WITH THE CONDUCTIVE SURFACE ADJACENT TO CONTACT PINS AND SECURE WITH CABLE TIE WRAPS) OVER CABLE RECEPTACLES WHOSE PINS CONNECT TO CIRCUITS WHICH COULD BE DAMAGED BY ESD POTENTIALS.
4. FOR EQUIPMENT USING TERMINAL BOARDS FOR CONNECTION TO EXTERNAL CABLING, EXPOSED TERMINAL STRIPS (WITHOUT COVERING PANELS/BOXES) CONNECTING TO INTERNAL ESDS CIRCUITS SHALL BE COVERED WITH STATIC DISSIPATIVE OR CONDUCTIVE ESD PACKAGING MATERIAL (STATIC DISSIPATIVE OR CONDUCTIVE LAYER ADJACENT TO TERMINALS) AND SECURED TO PREVENT INADVERTENT TERMINAL CONTACT BY PERSONNEL.
5. SHALL BE CLEARLY IDENTIFIED AS ESDS ON SHIPPING DOCUMENTS, PACKING LISTS, BILLS OF LADING, ETC.

C. UTILIZING ELECTROSTATIC DISCHARGE SENSITIVE (ESDS) PACKAGING FOR COMPONENTS THAT ARE NOT ESDS IS STRICTLY PROHIBITED. APPLYING ESDS LABELS OR MARKINGS TO COMPONENTS THAT ARE NOT ESDS OR TO PACKAGING OF COMPONENTS THAT ARE NOT ESDS, IS STRICTLY PROHIBITED. INCORRECT OR IMPROPER ESDS IDENTIFICATION OF NON-ESDS COMPONENTS, OR THE PACKAGING OF NON-ESDS COMPONENTS, WILL BE CAUSE FOR REJECTION BY ELECTRIC BOAT CORPORATION.

