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# Glenair CostSaver Composite EMI/RFI Junction Boxes Design Guide - Test Plan

## Glenair Composite Boxes, Connectors and Accessories Test Plan

#### Plating Adhesion Glenair# 9-44-18/TN94-159

The item is tested in accordance with MIL-DTL-38999 and should not exhibit any blistering, peeling or other separation of the units plating when immersed in ice water at 0°C within 15 seconds after 30 minutes exposure to 200°C in a circulating oven.

#### Vibration NTS# 973-7369-2

When mounted in a suitable fixture on a vibration table and subjected to vibration in accordance with MIL-STD-167 type 1 for box units & Mil STD-1344, Method 2005 Condition III, for fittings and accessories. The tested items should not exhibit loosening of component parts or evidence of damage.

#### Shock NTS# 973-7369-2

When mounted on an Impact plate the Glenair Box is subjected to shock load (Hammer drop) in accordance with MIL-STD-901D, Lightweight, Grade C, there shall be no loosening of parts or evidence of damage. A 400 LB hammer weight attached to a 5 foot long swing arm is raised and released to strike the mounting plate, 9 blows (3 blows in 3 axes).

#### Shock MOD# BR8470 Grade C & F

Glenair box is mounted on a suitable fixture and subjected to an initial 70G load progressing to 130G load in accordance with MOD BR 8470 Grade C & F, there shall be no loosening of parts or evidence of damage.

#### Salt Spray Glenair# 9-44-18/TN94-159

The item shall meet Braid Retention, Device conductivity, functional requirements and exhibit no exposure of underplate or base material when subjected to 2000 hrs per MIL-STD-1344 Method 1001.

#### Dust NTS# 973-7369-1

The item must conform to required torque limits and functional requirements within 25% after being subjected to sand and dust test of MIL-STD-202 Method 110.

#### UV Light Resistance GE RDM88050255-6042

There shall be no degradation of the mechanical properties defined in this specification after testing in accordance with ASTM D2565

Glenair's 140-060 Series Junction Box for the US Navy is available in four sizes and is supplied either with or without terminal rails and blocks. (See Page E-16)



#### **Impact**

There shall be no evidence of breaking or cracking of components or other damage, which could affect the product performance. The box will be tested in accordance with MIL-STD-1344 Method 2015 using 8 drops from a height of 2 meters with plate indexed at 36° intervals.

### External Bending Moment Glenair# 9-44-18/TN94-159

No evidence of damage detrimental to normal operation when subjected to 3X magnification after being subjected to loads specified in MIL-STD-1344.

#### Temperature Cycling NTS# 575-9249

Item is subjected to a controlled temperature in accordance with MIL-Std-1344 Method 1003 @ -65°C to 200°C. After testing the product must not exhibit any cracking, peeling or separation of plating, or other functional damage.

#### Hydrolytic Stability NTS# 878-536

In accordance with ASTMD570-81, Tested Items shall be free of defects detrimental to mechanical performance, no increase in weight greater than 1% and no evidence of cracking, breaking or loosening of component parts when subjected to boiling water.

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