

# Wide Range of Instrumentation and Support Equipment Including:

DELSERRO ENGINEERING SOLUTIONS

- Power Supplies
- Digital Multi-Meters, Scanners and Data Loggers
- Computerized Data Acquisition and Analysis
- High Speed Vibration and Shock Data Acquisition
- Electrical Relays, Switches, Timers, Components for Customized Setups
- Microscope with Digital Image Recording

## **Fixture Design Capabilities Include:**

- Custom Mechanical or Electronic Test Fixtures
- HALT or Production HASS Test Fixtures
- Vibration and Mechanical Shock Test Fixtures
- Create Custom Testing Equipment

### **Custom Test Plans**

Extensive knowledge and experience in developing Reliability and Accelerated Life Test Plans. Reliability analysis software available.

# **Custom Testing Capabilities Include:**

- Custom Testing/Test Fixtures
- Performance Verification
- Small Component Fatigue Testing
- Load, Strain, Displacement, Velocity, or Acceleration Data Acquisition
- Field Problem Reproduction and Solution
- Material Strength Validation

## Lead Free and SnPb Solder Joint Reliability Testing

Extensive Knowledge and Experience in the area of Lead Free Solder Joint Reliability Testing

Testing Capabilities Include:

- HALT or Rapid HALT
- Mechanical Vibration and Shock Testing
- Temperature Cycling, Thermal Shock, and Humidity Testing
- Typical guidelines used for testing are from IPC and JEDEC

# **Packaging Testing**

Typical Tests Include: ISTA, ASTM D999, D4169 and D4728

## Equipment Capabilities:

- Random or Sinusoidal Vibration
- Drop Testing
- Environmental Conditioning
- Compression Testing

### **ESS**

Environmental Stress Screening (ESS) is applied during the production process to improve reliability and reduce warrantee costs.

### Equipment Capabilities:

- Temperature Range of -100°C to +200°C (-148°F to +400°F)
- Temperature Rate of Change up to 60°C/ minute
- Random Vibration up to 50 Grms and 3,000 Hz Frequency Range
- Custom Production ESS Fixtures Designed and Built

**Delserro Engineering Solutions** provides engineering and testing support to a variety of industries including Military, Aerospace, Telecommunication, Transportation, Medical, Industrial, and Consumer on products ranging from artificial heart systems to complex military systems. We will customize our services to fit your needs and work closely with your personnel over the entire course of the project. Our goal is to exceed your expectations every step of the way. Every day we provide customers with value-added solutions that translate into competitive advantages and increased profits. Experience the difference DES can bring to your business today!

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