



Environmental Test Capabilities

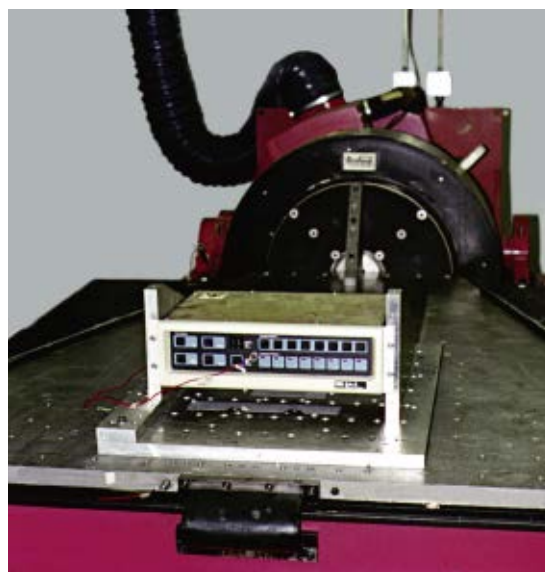
In support of its broad range of Military and Commercial products, L-3 Communications, Linkabit Division has developed extensive experience and capabilities in the area of environmental testing. These capabilities were expanded greatly in 1987 in support of a Flight Qualified "Top Gun" Missile Simulation System.

Since 1990, Linkabit has been offering these services to many large and small clients both locally and outside the Melbourne area. This testing has covered large 19" Rack Systems down to small Crystal Oscillator components. The environments ranged from Space launch to Seismic testing. The Environmental Test Lab conforms with ISO9001:2000, ISO10012-1 and has been favorably surveyed by several major defense contractors. All test data including setup information, measured response charts, and digital test photographs are provided at test completion. Formal test reports can be quoted separately.

Vibration Testing — Capabilities include test and fixture design and fabrication. Random, Sine, and Sine On Random vibration with up to 10,000 force pounds to enable testing from the smallest board or component to much larger system testing. The main reasons for this testing include:

Engineering Testing — To verify product ruggedness, mounting strength, design clearances, fatigue weakness.

- ENGINEERING TESTING
- QUALIFICATION TESTING
- ESS TESTING ENVIRONMENTAL STRESS SCREENING (ESS)
- ELECTROMAGNETIC SHOCK TESTING
- THERMAL SHOCK TESTING
- COMPETITIVE COSTS
- FORMAL TEST REPORTS



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Vibration Testing Conducted On-Site for Qualification or Product Verification

Qualification Testing — Usually specification driven, this testing is designed to assure that the product will properly operate in its worst expected environment. A non-powered requirement covers transportation and storage environments.



ESS Testing — Environmental Stress Screening (ESS) is used as a manufacturing screen to detect defective workmanship. This, usually non-powered, vibration screen is often tailored to the item being tested, to weed out defects without causing physical damage to the test item. This testing will highlight

loose hardware, poor solder joints, cable routing problems, and poorly mounted components.

Shock Testing — Linkabit is able to provide electromagnetic shock testing, including halfsine, terminal peak sawtooth, and trapezoidal.

Temperature Testing — Complete capabilities are available with chamber volumes up to 110 cubic feet and slew rates up to 10°C per minute, and temperature limits from -73°C to +177°C.



LINKABIT IS COST COMPETITIVE IN OUR ENVIRONMENTAL TEST ACTIVITIES. THIS IS ACCOMPLISHED THROUGH THE USE OF COMPUTER CONTROL/MONITORING OF THE TEST CHAMBER AND SAFETY PARAMETERS, AS WELL AS UUT TEST STIMULI AND RESPONSE. PARAMETRIC DATA MAY BE REMOTELY MONITORED VIA MODEM. COSTS ARE ALSO RESTRAINED BY THE USE OF STANDARDIZED FIXTURES WHERE POSSIBLE. PLEASE CALL FOR ADDITIONAL INFORMATION, PRICE QUOTES, AND FACILITY TOURS.

ISO9001



Note: All specifications subject to change without notice

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