

HALT Testing Package

- ▶ Learn your product's weaknesses through testing, not through customer complaints.
- ▶ HALT (Highly Accelerated Life Testing) uses extreme temperatures and vibration to push your product to its limits. You learn the tolerances of various components and can design improvements where needed to demonstrate compliance or increase ruggedization.



Overview of Package

Why HALT?

- ▶ Lets you find weaknesses in product design by exposing the product to thermal variations and vibration
- ▶ Occurs in the **design/prototype phase** of product development
- ▶ Each identified weakness can be corrected before design is finalized, adding many lifetimes of use to the product
- ▶ Benefits of HALT testing include:
 - | Faster time to market
 - | Greater product maturity at introduction
 - | Reduced overall warranty costs
 - | Improved customer satisfaction

What's Included?

- ▶ 1 hour initial engineering consultation to determine specific needs and design test plan
- ▶ 3 days of HALT testing in our Qualmark Typhoon chamber (additional time based on half-day increments)
- ▶ Profile setup and ongoing support from an expert technician during testing
- ▶ Detailed test report document (sample available upon request) containing top-level analysis of faults found and suggested mitigation strategies
- ▶ Optional: design and creation of test fixture

Chamber Specs: Qualmark Typhoon 3.0

- ▶ Internal Dimensions: 44.1" w x 45" d x 35" h
- ▶ Table: 36" x 36", 450lbs recommended capacity (900lbs max)
 - ▶ Thermal Capability
 - | Temperature Range: -100°C to +200°C
 - | Temperature Ramp Rate: 70°C / min avg
 - | Heating System: Open-element nichrome type
 - | Cooling System: Vacuum jacketed liquid nitrogen injection
 - | Multiple thermocouples can be placed at various locations within chamber
 - ▶ Vibration Capability
 - | Actuators: 10 Pneumatic, impulse-type
 - | Vibration Type: Random X-Y-Z broadband excitation
 - | Vibration Levels: Up to 60 Grms with 6° of freedom
 - | Multiple accelerometers can be placed at various locations within chamber
 - ▶ Control and Reporting
 - | PC and LabVIEW software for programming, data capture and reporting
 - | PCB Piezotronics Model 483C05 signal conditioner
 - | 8 user-controllable solid state relays

| [Facility & Contact Information](#)

Videon's Facility and Staff

- ▶ 32,000 sq ft facility including 10,000 sq ft ESD-safe manufacturing wing
- ▶ Clean, bright, environmentally-controlled workspace
 - | Temperature controlled burn-in room
 - | Segregated and locked location for customer-owned inventory
 - | Available office space, meeting rooms, and employee amenities such as kitchen, gym, and theatre
- ▶ Experienced staff, including:
 - | Customer Care team ensuring that we meet your needs
 - | Dedicated contact to address concerns and answer questions
 - | Highly-trained engineers and technicians on-site to troubleshoot and support projects
 - | IPC610 Certified Assembly Team

Additional Equipment

- ▶ Haefely ESD Simulator
- ▶ Logic Analyzers
- ▶ Oscilloscopes
- ▶ Electro-Sensitive Device (ESD) protective environments

Additional Services

- ▶ Testing Services including HALT, EMI, Temperature and HASS
- ▶ New Product Introduction
- ▶ Service and Repair

Regulatory Compliance Standards

- ▶ Highly experienced with aviation standards including RTCA DO-160 (FAA), Boeing D6-36440, Airbus ADB0100
- ▶ Military experience and qualifications including MIL-STD-461/810; Registered ITAR and SAM; United States / Canada Joint Certification Program
- ▶ Experienced with consumer standards including FCC, CE, VCCI, ISO and UL
- ▶ AS9100C Quality Management
 - | Fully incorporates ISO 9000
 - | Ensures production of high-quality products
 - | Supports customer satisfaction through continuous improvement and risk mitigation
- ▶ AS9102 First Article Inspection
- ▶ Process Failure Mode Effects Analysis (PFMEA)
- ▶ Willing to apply our expertise to the requirements of additional industries, standards, and regulations.



Interested? Contact Us

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