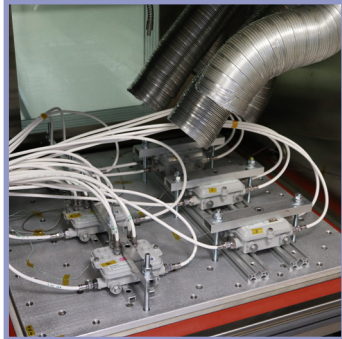




HALT TEST SERVICE

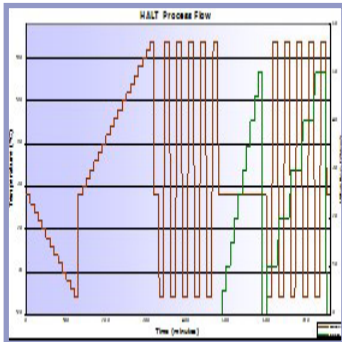
- FOCUS ON ROBUSTNESS OF ELECTRONIC SYSTEMS
- DISCOVER (HIDDEN) WEAKNESSES
- RESULTS WITHIN DAYS
- EXPERIENCED HALT TEAM
- EXTENSIVE REPORT

HALT TEST SERVICE



SERVICE

- Test performed on prototype
- Stress system beyond specification limits
- Set-up and monitoring advice
- Efficient HALT test execution
- Extensive report including all findings with photos



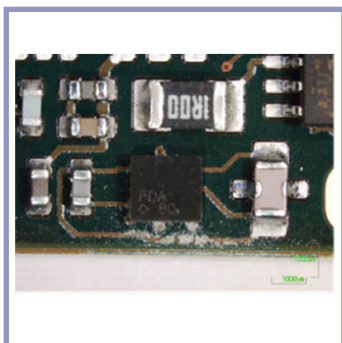
HALT PROCEDURE

- Set-up with customer setup and customer engineer on-site
- Temperature step stress low temp
- Temperature step stress high temp
- Rapid thermal cycling
- Vibration step test
- Combined temperature and vibration test @ tested limits



OUR SYSTEM

- ESPEC Cooperation Typhoon 2.5+ Inferno
- Temperature range -100°C up to +250°C, ramp rate up to +70 K/min
- Chamber size: 760 x 760 x 640 mm³, height adjustable to 900 mm
- Rapid cooling with liquid nitrogen
- Omni Axial Vibration table excites six axes (3 linear and 3 rotational)
- Vibration up to 75 Grms
- Broadband 2 Hz to above 10 KHz



TYPICAL FINDINGS

- Connectors open / broken (mechanical)
- Capacitor and inductor broken (mechanical)
- Communication issues (electrical timing)
- Wrong components used (electrical)
- Display / touchscreen failures
- Weak power supplies
- Broken solder joints (IPC related)