



MicroTechnology

TEST SERVICES

The C-MAC Test House is a leading European test facility for components, materials and equipment.

With a highly-skilled team of test engineers, excellent customer service, an extensive range of tests and well-respected accreditations and lab suitability approvals, the C-MAC Test House has grown to become one of the leading test facilities in the UK and Europe.

UKAS-accredited test services include:

» Climatic testing

- Dry heat and dry cold
- Damp heat
- Low air pressure
- Thermal shock, liquid to liquid and air to air
- Temperature cycling
- Electrical endurance
- Salt atmosphere/corrosion

» Dynamic testing

- Vibration
- Shock
- Bump
- Acceleration

» Electrical testing

» Solderability

Commercial test services include:

» Drop test

» Hermeticity

» High temperature testing up to 300°C

» SRS (Shock Response Spectrum)

» X-ray inspection

» PIND (Particle Impact Noise Detection)



We hold the following system accreditations:

- » UKAS ISO 17025
- » BS9000
- » IECQ/CECC

C-MAC is the only test facility in Europe to hold DSCC lab suitability approval for performing tests in accordance with:

- » MIL-STD 883 and MIL-STD 202/1344

www.cmac.com/services/testing

C-MAC test methods and specifications

All tests below are UKAS-accredited.
Detail and revision level available on request.

	ISO-9001 EN 60068-2	ML-STD 2087344	ML-STD 619	ML-STD 683	ML-STD 703
Climatic Tests – single parameter					
High temp storage. Max 200°C	•		•		
Low temp storage. Min -70°C	•		•		
Temp change (thermal shock). Rapid air to air -70°C to 200°C. Gradual air to air -70°C to 200°C Rapid liquid to liquid -74°C to 160°C	•	•	•	•	•
High humidity steady state 10°C to 85°C 10%/rh to 98%/rh	•	•			
High humidity cyclic 10°C to 85°C 10%/rh to 98%/rh	•	•	•	•	•
Low pressure 1000Pa (equiv. 31,200m)	•	•	•	•	•
Salt mist	•	•	•		•
Salt corrosion	•			•	•
Climatic tests – combined parameters					
High temp/low temp/low pressure -70°C to 160°C 1000Pa (31,200m)	•	•			
Dynamic tests					
Vibration – sinusoidal Frequency range 5 to 5,000Hz Peak thrust 7.6kN Max pk/pk disp. +/- 12.5mm Temp -50°C to 150°C Including cyclic	•	•	•	•	•
Vibration – random Freq. Range 5 to 4,000Hz Peak thrust 6kN Max pk/pk disp. +/- 12.5mm Temp -50°C to 150°C Including cyclic	•	•	•	•	
Shock Max severity 30,000g _h Max mass 22kg Max size 0.2m x 0.2m x 0.2m	•	•	•	•	•
Bump Max severity 40g Max mass 23 kg Max size 0.3m x 0.3m x 0.3m	•				
Acceleration –steady state Max accel 40,000g _h Max item mass 0.2kg Max item size 0.1m x 0.1m x 0.1m	•	•	•	•	•
Additional test services					
Resistance to solvents/contaminating fluids Solvent/Fluid to be specified	•	•		•	•
Solderability (soldering heat) Soldering baths/irons as specified Steam ageing available	•	•		•	•
Robustness of terminations Tensile Bending Torsion Torque Solder pad adhesion	•	•		•	•
Insulation resistance		•		•	

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January 2009