

Temperature Cycling / Shock test service

Temperature Cycling / Shock tests are executed for the qualification of IC's and electronic systems. Temperature cycling can be performed in 2 zone (with elevator) for component/systems and 1 zone (single chamber) typically for BLR/PTC. Temperature shock can be performed in liquid to liquid ((perfluorinated) inert fluid or oil).

MASER Engineering supports these biased and unbiased TC tests with a wide range of systems.



TEMPERATURE CYCLING/SHOCK

- 2 zone systems with hot and cold zone using an elevator
- 1 zone systems with ramp-rate
- Temperatures from -70 up to 275°C
- Specifications: JEDEC/AEC-Q100/MIL/IEC
- In compliance with ISO-17025 accreditation
- Central Monitoring System (CMS)



PTC TEST

- Power and Temperature Cycling test
- AEC-Q100 / JEDEC JESD22-A105
- Typical test conditions:
 - -40/+85°C, 1 cycle/hr and ramp-rate: 6,25 K/min
 - -40/+105°C, 1 cycle/hr and ramp-rate: 7,25 K/min
 - -40/+125°C, 1 cycle/ hr and ramp-rate: 8,25 K/min
 - 5 min power on, 5 min power off



PTC BOARDS

- In-house design capability and know-how
- Project management of board manufacturing and assembly
- Standardized board size of 127 x 520 mm
- Use of High Tg FR-4 epoxy for $T \leq 150^\circ$
- Use of high quality polyimide multi-layer boards for extended lifetime

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TC SYSTEMS

- 2 zone, air to air
- 4x ESPEC TSE11
- Temperature range -70°C to +200°C
- 1x ESPEC TSD100
- 1x ESPEC TSD100/300
- Temperature range -70°C to +200°C/+275°C
- Specification:
 - JEDEC JESD22-A104
 - MIL-STD-883, method 1010
 - IEC-60068-14



TC SYSTEMS

- 1 zone
- 2x ESPEC TCC150 (15K/min)
- 1x ESPEC EGNZ12-7.5cwl (7-8K/min)
- 1x ESPEC HC-120 (11K/min)
- Temperature range -70°C to +150°C
- Specification:
 - JEDEC JESD22-A105
 - JEDEC JESD22-A104
 - MIL-STD-883, method 1010
 - IEC-60068-14



LIQUID TO LIQUID SYSTEM

- 2x Heraeus-Vötsch VFS
- 1x Liquid to liquid: (perfluorinated) inert fluid
- 1x Liquid to liquid: Oil
- Temperature range -65°C to 150°C
- Specification:
 - JEDEC JESD22-A106

For more info please visit www.maser.nl
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