

Mid-2

The Ultimate User Experience - Mid Power Temperature Forcing System

For IC, Wafer and electronics characterization, test, and failure analysis

Thermal cycling of DUT from **-60°C** to **+150°C** (-/+0.1°C)

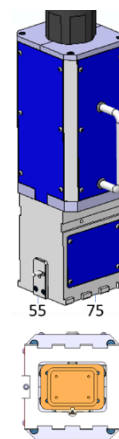
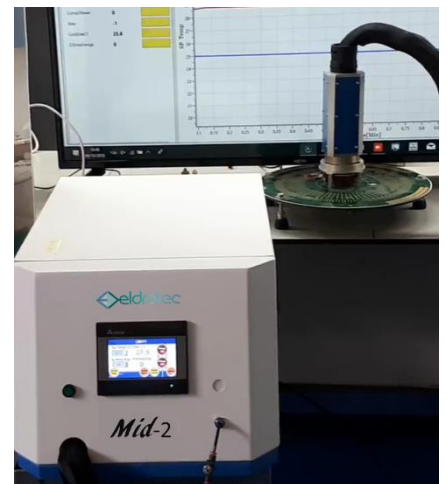
DUT Power Range: 0-150W (-40°C at 100W)

DUT Dimensions optional: 2X2 mm to 40X40 mm

Mid-2 benchtop temperature forcing system provides a highly responsive, thermally conductive path to quickly induce temperatures to the DUT. This highly reliable system **—without thermoelectric modules** uses a patented thermal probe **TCS** to mate directly your IC or other device under test. Using proprietary, robust refrigeration technology can perform thermal cycling without the worry of cooling degradation.

Mid-2 high power temperature forcing system has the best cooling power of any product in its field.

Mid-2 temperature forcing system stimulates DUT to the desired temperature from -60°C to 150°C by direct contact between a thermal head's plunger and a socketed or soldered down DUT. **Mid-2** can be used to test multi-site DUTs using a thermal plate. It can be integrated into probe stations, handlers, testers, and ATEs. **Mid-2** is a stand-alone, plug and play system which requires only 110-208VAC 16A wall outlet and clean dry air or nitrogen for condensation free operation during cold testing.



Features

Temperature range of -60°C to +150°C (-/+0.1°C)

Automatic Precision pressure control - up to 45kg (+/-1kg)

Compact Footprint – Fits easily on a bench top

Self-Contained – No external chiller

Simple operation: Air & Power --- Low cost of ownership

Fluid-Free Operation --- Rapid Temperature Cycling Rates

Environmentally Friendly Operation --- ESD-SAFE

Integrated into production test handlers

Temperature sensing: T-case \ T-junction \ T-heatsink

Ethernet (TCP/IP) Remote Interface

Supports \RS232\RS485 Protocol

Suitable for testing soldered devices and devices in sockets

Integrates with every existing socket on the market

Packages Supported:

IC, CPU, GPU, DPU,

BGA, FCBGA, LGA, QFN, QFP, CSP, WLCSP,

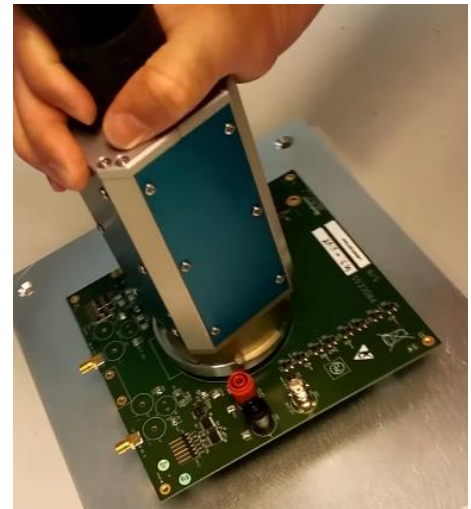
Bare Die, and another Devices Under Test.

Maintenance-free

Vibration free

low energy consumption

quiet operation



Experience user – Operator Interface

- ✓ 5" color PLC touch screen
- ✓ Connection with the DUT in one click only
- ✓ Automatic Pressing Control on DUT
- ✓ Offset profile programming T case – T junction
- ✓ Stand-by operation mode
- ✓ Temperature display and recording
- ✓ Temperature overshooting control
- ✓ LabVIEW/C++/Visual Basic drivers/Perl/Tickle drivers
- ✓ Temperature control through PT-100, thermocouple via K-type or D-type

Specifications

System General

Temperature Range	-60°C to 150°C (T-CASE: -40°C at 100W)
Power Range	0-150W
Temperature Stability	0.1°C
Temperature Accuracy	0.1°C
Temperature Sensor	T CASE - PT100 Thermistor Optional – Thermal Diode through the Ethernet or analog port
Transition Rates	25°C to -40°C in ~ 1.5 min 125°C to 25°C in ~ 1 min
Temperature Calibration	Software calibrated
Remote Interface Ports	Ethernet (TCP/IP) \ RS232\ RS485\
System Indicators and Fail-safes	Real-time status displayed on-screen and via remote interface
Fully Automated DUT Pressure Force	2 – 45 Kg/Force +/- 1 Kg (depending on interface) 6-10 Bar
DUT Dimensions optional	2X2 mm to 40X40 mm
Noise Level	<52 dBA
Condensation Protection	Dry air flow <0.5 scfm

System Requirements

Electrical	110-240VAC, 50/60Hz, 16A - 1 phase wall outlet
Ambient Temperature	5°C to 35°C
Ambient Humidity	20% to 95% RH
Dry Air or Nitrogen - For thermal head pressing control - And to prevent condensation at very low temperatures - Hose	- 6-8 bar - 0.5cfm (1.5-3.0 PSI) Dewpoint < -50°C - 4 to 6mm Industrial Standard Quick Connector

Mechanical Dimensions

System dimensions	(L) 620mm x (W) 380mm x (H) 290mm
System Weight	~45 Kg
Thermal head (mm)	Round model: ~ 80 Diameter Square model: ~ 75mm X 55mm
Thermal head hose	2.5 meter (Option to custom)