

MaxTC G4 is Mechanical-Device's high performance system.

Designed to handle high power dissipation DUT's, by direct conduction thermal control.



MaxTC's G4 thermal conduction cooling and heating system stimulates the DUT to the desired temperature by direct contact between the thermal head plunger and the DUT. The solution is suitable for soldered components or sockets through a variety of interfaces such as adapter plates, boom stands, vacuum applications and pneumatic systems.

## Powerful stand-alone Thermal control unit, Features:

- o Great cooling power -40°C @90W
- Extended temperature ranges easily reaches -65°C or less at Tj
- o Fast time to temperature ratio
- Very short soak time stabilization
- o Excellent temperature stability 0.2°C
- Powered by a smart controller accessible via a 7-inch color touchscreen with an extensive menu
- o Remotely controlled via an Ethernet

### MaxTC G4 is a stand-alone, plug and play Unit, requires only:

- AC input; MaxTC: 208-240 VAC; 1~50Hz /60Hz 16A
- Plug type: NEMA L6-20 or 30
- o Cold testing free from condensation

# MaxTC G4 systems are suitable for testing your devices at:

- Your testing bench
- o ATE's in your lab and integrates in production seamlessly with handlers
- MaxTC can also be used for testing multi-site DUT's
- o Used as a probe station with a thermal chuck

#### MaxTC with a Clip-On and Z axis integrated:

- Robust and small footprint
- $\circ\quad$  Setup is convenient and very fast using clip connections.
- Applies precise and consistent force contact and thermal conductivity.
- Accurate actuating force (Kgf) controlled from a touch screen or remotely
- Simple and quick connection and disconnection of the thermal head
- o Adaptable for variety of soldered and socketed devices (2mmto 45mm)
- For full actuation only compressed air supply is required. (80PSI maximum, 4mm air pipe hose)
- o Ideal for bench testing, ATE and productive test engineering

## System general

System general	
Temperature range	-70°C to +175/200°C
Temperature accuracy	±0.5°C
Typical transition	25°C to -40°C in ~<2min
rates	125°C to 25°C in ~<2min
Temperature sensor	Tcase PT100 thermistor
	K-type thermocouple
	Thermal-diode through ethernet port
	Thermal-diode through analog port
	Ethernet (TCP/IP)
System indicators and	Thermal head over-temperature
failsafes	fan operation, cooling unit operation
DUT pressure force	2 - 100 Kg/Force
DUT dimensions	≥ 2 x 2 mm
DB rating	55 dBA
MTBF	70,000 hr

#### Mechanical dimensions

System enclosure mm / inch	L) 610mm x (W) 505mm x (H) 365mm (L) 21.8" x (W) 17.7" x (H) 11.8"
System weight	52 Kg
Thermal head (mm)	80mm diameter
Thermal head hose	2 meter (6.5ft) standard

# **System requirements**

Electrical	220/230/240 VAC ±10% 50/60 Hz, single phase, 10A max.
Purge	0.2-0.6[MPa] dry air/ dry Nitrogen
Ambient temperature	5°C to 35°C (40°F to 95°F)
Ambient humidity	20% to 95% RH

#### **Product features**

- Condensation FREE at cold test
- o Maintenance FREE system
- Fully programmable with MATLAB, Lab VIEW, C++, VB, Lynux, Python and others
- Cost effective due to low cost and high performance
- Vibration FREE contact
- Magnetic field FREE contact
- o PID overshooting control

- Stand-alone plug and play system
- o No external chiller or compressed air is required
- Software controlled transition rates
- Suitable for testing any socketed or soldered devices
- o Environmentally friendly operation
- ESD safe product
- o Min and Max temperature safety lock
- o Can be seamlessly integrated with handlers and ATE.

