



Home Product Guide Thermal Solutions ETC 2000

ETC 2000

High Performance Thermal Control

The ETC 2000 features the industry's fastest and most accurate thermal control technology for high precision device characterization of high-power logic devices.

Scalable Platform

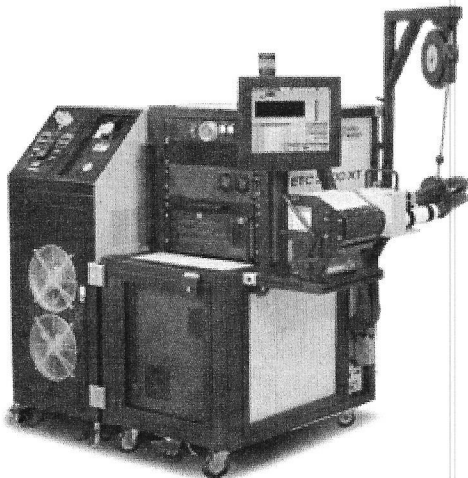
- Set point ranges: -10° to $+150^{\circ}\text{C}$, $\pm 1^{\circ}\text{C}$ with 0.1°C resolution; -50°C optional
- Thermal Unit (TU) sizes: 0.8", 1.0", 1.2", and 1.5"
- Control Modes: HTF - Heater Temperature Feedback, DTF - Device Temperature Feedback, PF - Power Following (patented)

Productivity

- Unique thermal chamber permits fast device changeover regardless of setpoint
- 8-channel on-system data acquisition for precise tracking of thermal performance parameters

Advanced Thermal Technology

- Power Balancing™ for precise junction temperature control (patented)
- Full PID ramp control
- Accommodates power densities up to 100 Watts/cm^2
- Control Accuracy: $< 3^{\circ}\text{C}$ at 50 Watts/cm^2 on C4 devices ($< 5^{\circ}\text{C}$ most other packages)



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Additional Resources

- [ETC 2000 Data Sheet](#) [PDF: 254KB]

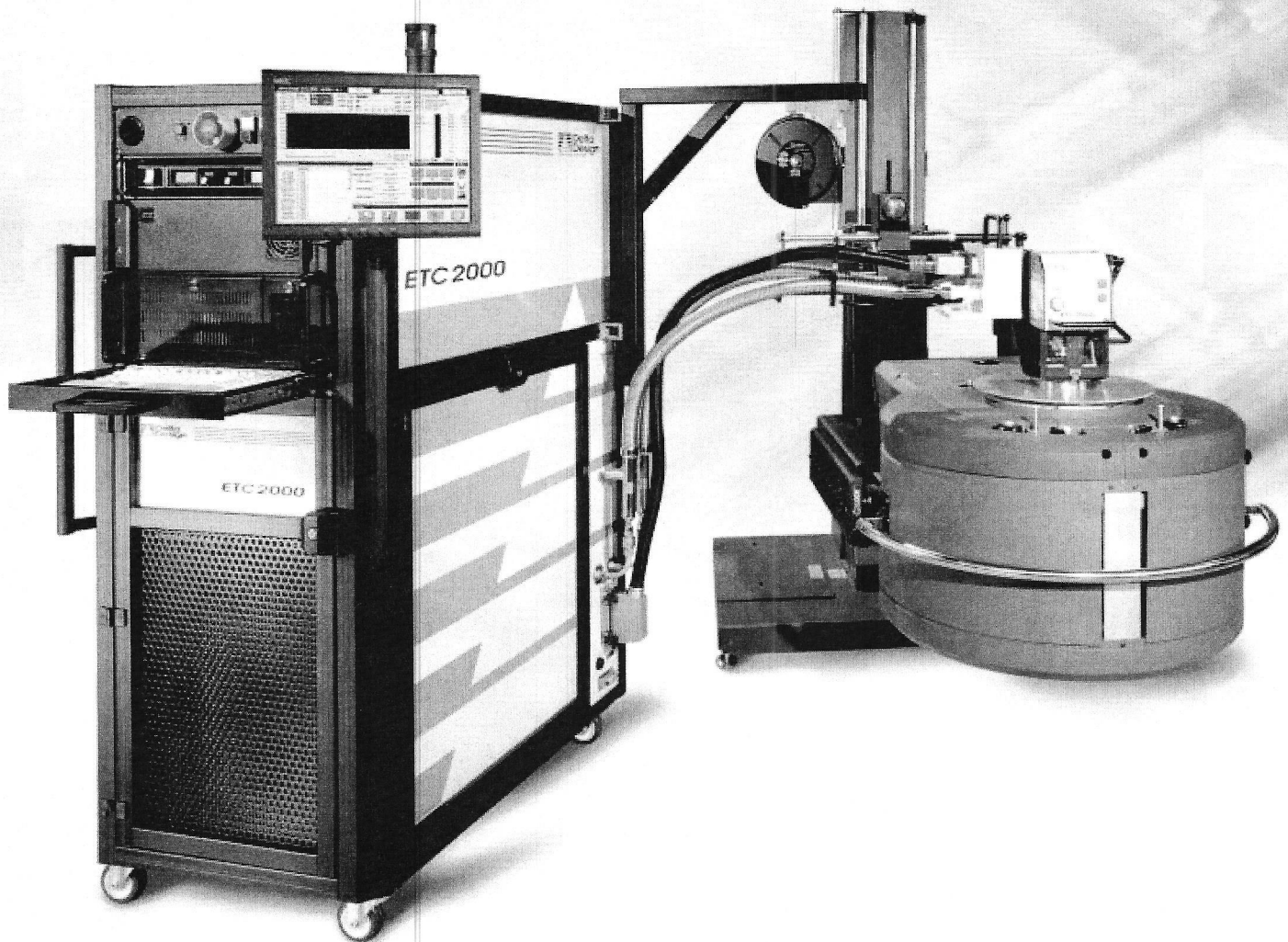
ETC 2000

**Delta
Design**
A Cohu Company

ENGINEERING THERMAL CONTROL

The ETC 2000 features the fastest and most accurate device thermal control technology:

- ▶ -70°C to +150°C setpoint temperature range available
- ▶ Patented Power Balancing™ junction temperature control
- ▶ 100°C per second temperature ramp rate
- ▶ Needs only AC power and air – no chilled water
- ▶ Easy access to test site



Specifications

DEVICE KITS

DEVICE KITS	BGA, LGA, PGA, MCM. (For other package types, consult Delta Design)
DEVICE SIZE	Minimum: 10mm x 10mm Maximum: 70mm x 70mm Thickness: Max 25mm
DEVICE CHANGEOUT	<30 seconds
DEVICE KIT CHANGEOVER	<30 minutes

PLATFORM

TEST SITE	Horizontal, can be configured for right or left side access
TEMPERATURE RANGE	-S and -L Models Passive: -30°C to +150°C Active: -10°C to +125°C -XT Model Passive: -55°C to +125°C -70°C to +150°C (optional) Active: -40°C to +125°C -55°C to +125°C (optional)
TEMPERATURE ACCURACY	±1.0°C with 0.1°C resolution
VARIATION FROM SETPOINT	±2°C of setpoint at start of test
THERMAL CONTROL MODES	Heater temperature feedback Device temperature feedback (RTD or diode) Power Balancing™
THERMAL UNIT	-S Model: 1.0 TU -L and -XT Models: 1.2 TU
TEMPERATURE RAMP RATE	100°C per second
USER INTERFACE	PC/LabVIEW®, keyboard with integrated trackball, color LCD

ESD	<100V within 6" of device
COMMUNICATIONS INTERFACE	GPIO and RS232 (consult factory for other options)
POWER REQUIREMENTS	208VAC, 60 Hz, 3-phase, -S and -L Models: 30 Amp -XT Model: 45 Amp
AIR	80 psi, 2-3 scfm, clean, dry dewpoint 15°C lower than coldest chiller setpoint
WEIGHT	-S and -L Models 750 lbs. (340 kgs.) -XT Model: 1270 lbs. (577 kgs.)
SYSTEM DIMENSIONS	-S and -L Models 25.4"W x 42"D x 63"H (0.65m x 1.08m x 1.62m) -XT Model 46.5"W x 40.0"D x 53.1"H (1.19m x 1.03m x 1.36m)

CHILLER

LOCATION	-S and -L Models: Internal -XT Model: External
POWER REQUIREMENTS	Provided through ETC2000 platform
TEMPERATURE RANGE	-S and -L Models: -40°C to +85°C -XT Model: -60°C to +50°C -80°C to +50°C (optional)
COOLING	Air-cooled, HFE

Specifications are subject to change without notice.
For detailed performance specifications, please contact Delta Design.



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