

ENDZONE 250

High Temperature Burn-in

Key Features

- Chamber**
 - Temperature profiling to +250°C
 - +/- 1°C temperature stability
 - Nitrogen option
 - 4kW heaters
 - Universal BIB types
- PSU**
 - 5 programmable PSU
 - Max voltage 100V @ 3A / PSU
 - PSU sequencing and soft starts
 - Voltage monitoring
 - Current monitoring
- Drivers**
 - 64 programmable patterns
 - 256K pattern depth
 - 8 loops with 8-bit counters
- BIBs**
 - Max BIB size 587mm x 291mm
 - Boards for applications to 250°C
 - Fine pitch layouts
 - BIB manufactured in-house

System Highlights

- High Temperature qualification burn-in system up to 250°C
- 10 position test chamber as standard
- Single position programming, allowing for parallel lot testing
- Optimised for AEC-Q100 qualification lot testing
- Supply voltages to 100V
- Windows interface control software
- Program database with full revision histories
- Remote software updates and maintenance
- Scalable to 8 complete systems via single PC control
- Optional modules for SPI and I²C

System Overview

- The Abrel Endzone 250 High Temperature Burn-in System has been developed to facilitate component qualification testing up to 250°C.
- The basic system features 10 burn-in positions. The configuration can be easily expanded up to a maximum of 8 systems, with a central PC controlling each system on a network.



- There is a 1:1 BIB to driver board ratio. The versatility of the system allows for multiple lot testing.
- A real time program editor and viewer, makes for quick and accurate test program generation. All programmed and scanned information is maintained in the system database.

Summary System Specifications

■ Chamber Configuration

10 BIB positions maximum

■ Power Supplies

	Low V	Standard V	High V
PSU1	0-5V @ 20A	0-20V @ 20A	0-100V @ 3A
PSU2	0-5V @ 20A	0-20V @ 20A	0-100V @ 3A
PSU3	0-5V @ 20A	0-20V @ 20A	0-100V @ 3A
PSU4	0-5V @ 20A	0-20V @ 20A	0-100V @ 3A
PSU5	0-5V @ 20A	0-20V @ 20A	0-100V @ 3A
VClk	0-5V @ 20A	0-16V @ 20A	0-16V @ 20A

■ PSU Accuracy

12 Bit Voltage Setability
 8 Bit Current Setability
 Accuracy 1% of set value
 Ripple, Noise, Spikes 100mV max (Static load)
 400mV Max (Dynamic Load 10% to 90%)

■ Monitoring

Over Voltage window range 0.1V to 5V
 Over Voltage Accuracy 1%
 Under Voltage window range 0.1V to 5V
 Under Voltage Accuracy 1%
 Over Current range 0.5A to Max. I of PSU
 Over Current Accuracy 1%
 Shutdown options on event failures

■ Patterns

Up to 64 clocks (in 16 clock increments)
 Maximum frequency 20Mhz
 256k min pattern depth
 Drive voltage 1-16V
 Drive current 400mA
 High, Low and Tri-State bit settings
 8x8 bit loop counters

■ Main Vector Generator

16 Bit resolution
 Minimum vector time 50ns
 Maximum vector time 1.6384s
 Max pattern frequency 20Mhz

■ Clock Generator

8 free running programmable clocks
 8 Bit resolution
 Minimum vector time 50ns
 Maximum vector time 12.8uS
 Max pattern frequency 20Mhz

■ Dimensions

Internal chamber 18"W x 25"D x 18"H
 External dimensions 30"W x 43"H x 35"D (door closed) / 52"D (door open)

■ Burn-in Boards

BIB size 587mm x 291mm
 Other board styles available
 Polyimide construction
 Max operating temperature 225°C
 Special applications to 270°C

■ Driver Cards

uController / Flash based design
 Switching regulators for PSU voltage generation
 Mux circuits for readbacks
 Unique board code addressing
 PSU on-off control

■ Software

Windows based software suite
 Temperature control and profiling
 PSU setup and sequencing
 Pattern generation
 Monitoring and readback
 Data base management

■ Temperature Range

+50°C to +260°C (air atmosphere)
 +15°C to +260°C (nitrogen atmosphere)

■ Ramp Rate

4min ambient to 80°C
 10min ambient to 125°C
 14min ambient to 150°C
 34min ambient to 260°C

■ Temperature Stability

+/- 1°C across chamber

■ Temperature Accuracy

+/- 2°C of setpoint

■ Oven Programming

Protocol digital temperature controller
 LED display and timer control
 Single, setpoint and profiling program capability
 Over-temperature control

■ Airflow

1HP 60CFM horizontal airflow
 4kW heater

■ Power Dissipation

800W @ 80°C / 1300W @ 125°C
 1400W @ 150°C / 1600W @ 225°C

■ Chamber Construction

Stainless steel interior
 Mild steel enamel finished exterior
 4" rockwool insulation
 High pressure exhaust air vent

■ System Facilities

Un-laden Weight 260kg
 220V/240V AC 50Hz single phase

