

ENDZONE Burn-in System

High Temperature Burn-in



Key Features

System Overview

- Temperature profiling to +250°C
- Cooling options to -60°C
- Nitrogen purge
- 7.5Kw load dissipation
- Universal BIB types

PSU Modules

- 6 programmable PSU
- 1kV High Voltage Modules
- PSU sequencing and soft starts
- Voltage / Current monitoring

Driver Modules

- 64 programmable patterns
- 1M pattern depth
- 255 loops, 1048576 repeat counts

Expansion Modules

- SPI Communications
- Leakage current monitoring
- Function Generator
- LIN Bus
- I²C

System Overview



□ Overview

The Abrel Endzone Burn-in System can offer multiple lot testing over a wide temperature range. Depending on the oven specified, the system can be configured for 10 burn-in positions and up to a maximum of 104 positions per chamber.

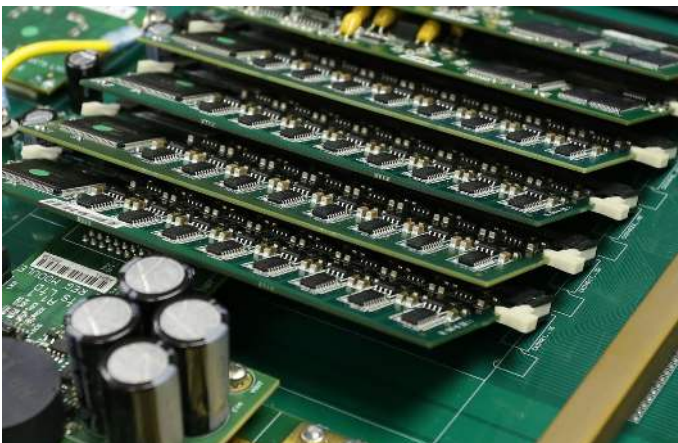
□ Hardware

A flexible backplane system allows for the user to configure a 1:1 or 3:1 BIB to driver board ratio, for single or zoned testing.

□ Program Editing

A real time program editor and viewer, makes for quick and accurate test program generation.

Universal Driver Board



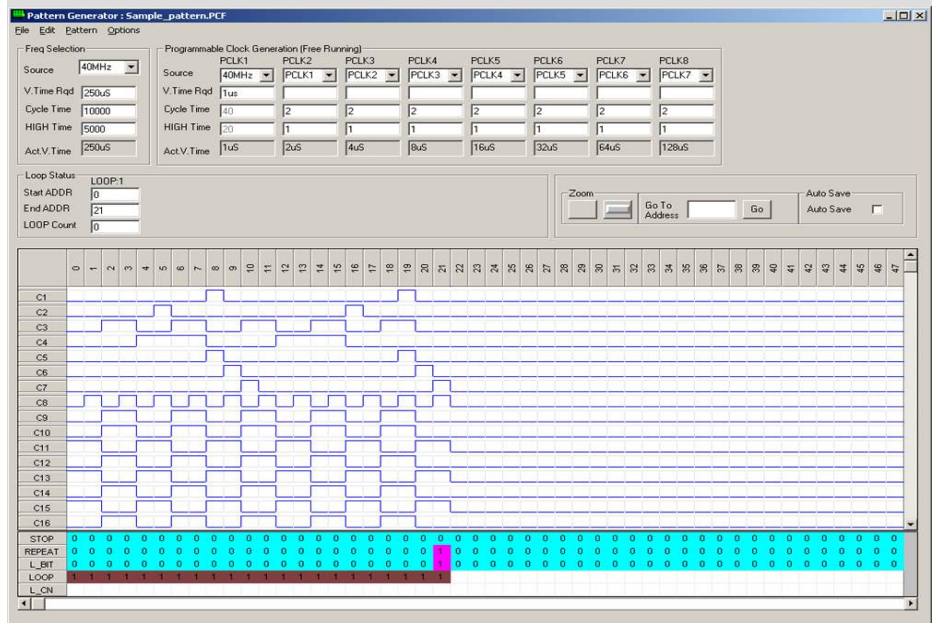
Summary System Specifications

System Configuration

Scaleable System - 10 BIB ~ 104 BIB slots
 Universal Driver Board
 6 PSU programmable modules per driver
 4 x 16 I/O CLK modules per driver
 2 FPGA module per driver
 1 Function module per driver
 64 I/O expansion module per driver
 Temperature options -60°C to +250°C
 Nitrogen and forced air cooling options

Software

Windows based GUI
 Temperature control and profiling
 PSU setup and sequencing
 Pattern generation
 Monitoring and readback
 Data base management
 Colour coded monitor indicators
 Remote access for debug and updates



PSU Modules

Module Options:-
 Low Voltage 0-5V @ 20A
 Standard Voltage 0-20V @ 20A
 High Voltage 0-100V @ 3A
 1kV option available
 Dissipation 150W per module
 Over & under voltage monitoring
 Over current monitoring

CLK Module

32 CLK I/O lines per module
 Maximum frequency 20Mhz
 1M pattern depth
 Drive voltage 1-16V
 Drive current 400mA
 High, Low and Tri-State bit settings
 255 loops
 1048576 repeat count cycles

Expansion Modules

Function Sine Wave
 SPI data analysis
 Leakage current monitoring
 Endurance testing
 i-Socket high power testing
 I²C testing
 LIN Bus testing



Burn-in Boards

Endzone style BIB
 High socket density
 Fine pitch layouts
 Monitored testing
 Polyimide construction
 Applications to 250°C

Driver Architecture

3:1 BIB to Driver Ratio
 Easily reconfigured to 1:1
 Single or Zone Programming
 Shared resources

BIB Configuration

Endzone (375mm x 605mm)
 192 I/O per BIB
 (64 drive, 64 monitor, 64 expansion)
 PSU, Sine and board coding channels

Debug Station

Prescreen test station
 Replicates 1:3 burn-in slot
 Program generation
 Driver board debug



Abrel Products

Raheen Business Park
 Limerick
 Rep of Ireland

Tel: +353 61 304566
 Fax: +353 61 304567
 Email: info@abrel.com
 Web http://www.abrel.com