

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

Universal Driver Board



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.

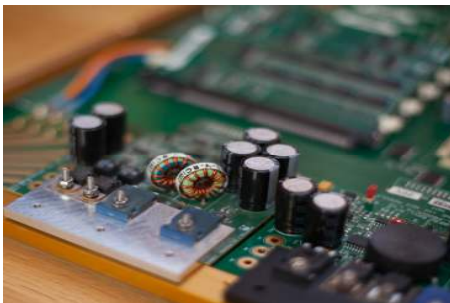
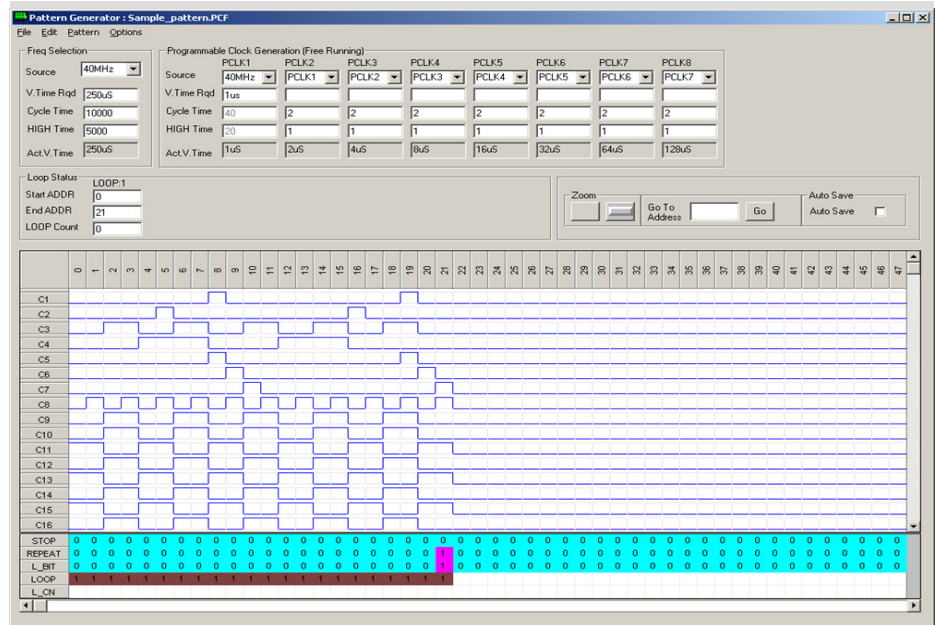
Summary System Specifications

■ 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



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