Abrel Products

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

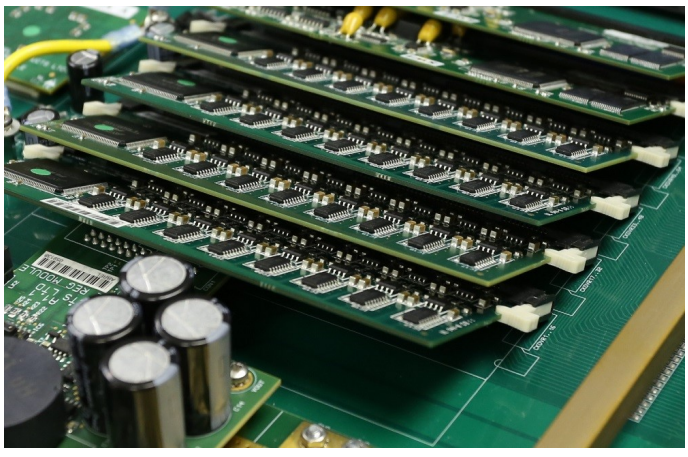
Driver Modules

- 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.

Abrel Products
advanced burn-in and reliability

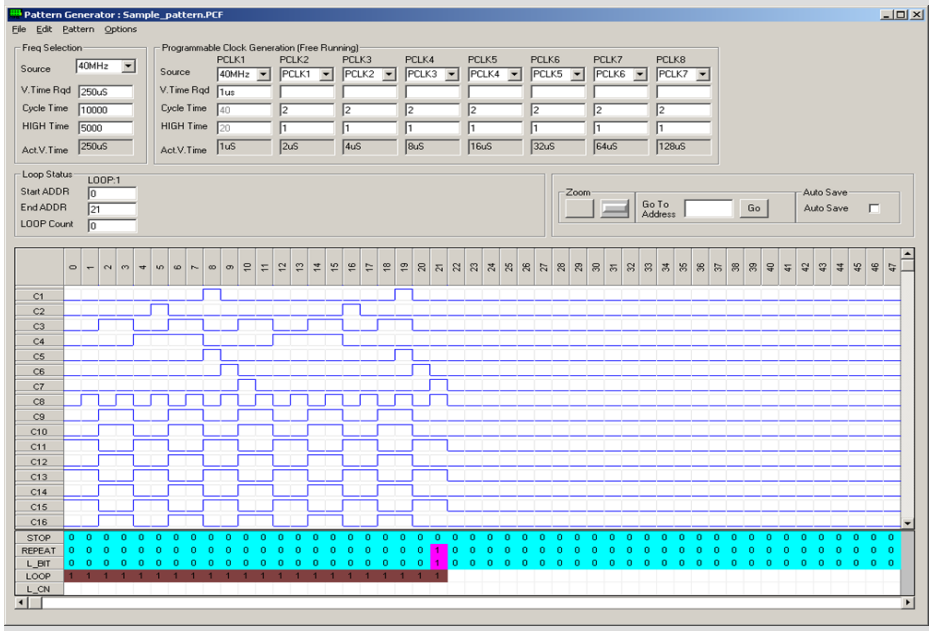
Summary System Specifications

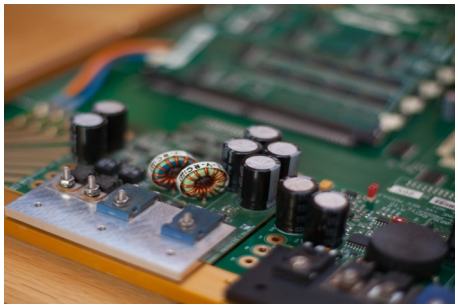
System Configuration

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

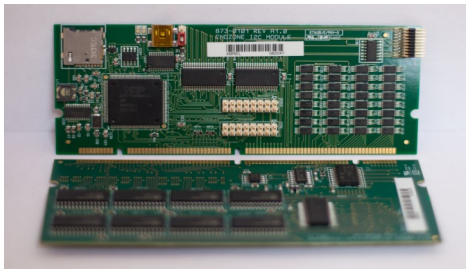
Module Options:-
Low Voltage 0-5V @ 20A
Standard Voltage 0-20V @ 20A
High Voltage 0-100V @ 3A
1kV option available
Dissipation 150W per module
Over & under voltage monitoring
Over current monitoring

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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