




**ZEQUN**  
**TECHNOLOGIES**



# **Power Integrated Burn-In System**

Building Bridges, Embracing Diversity

8/15/2023



# OUTLINE

## PIBI System

Features

Benefits

Functions

Others

## Technical Services

Burn-In Board

Hardware Engineering

Software Engineering

# Conventional Burn-In

Only Oven

Cumbersome Setup

(Power Sys.

/Monitoring Sys.)

Eqt. Management

Storage Space

Soldering

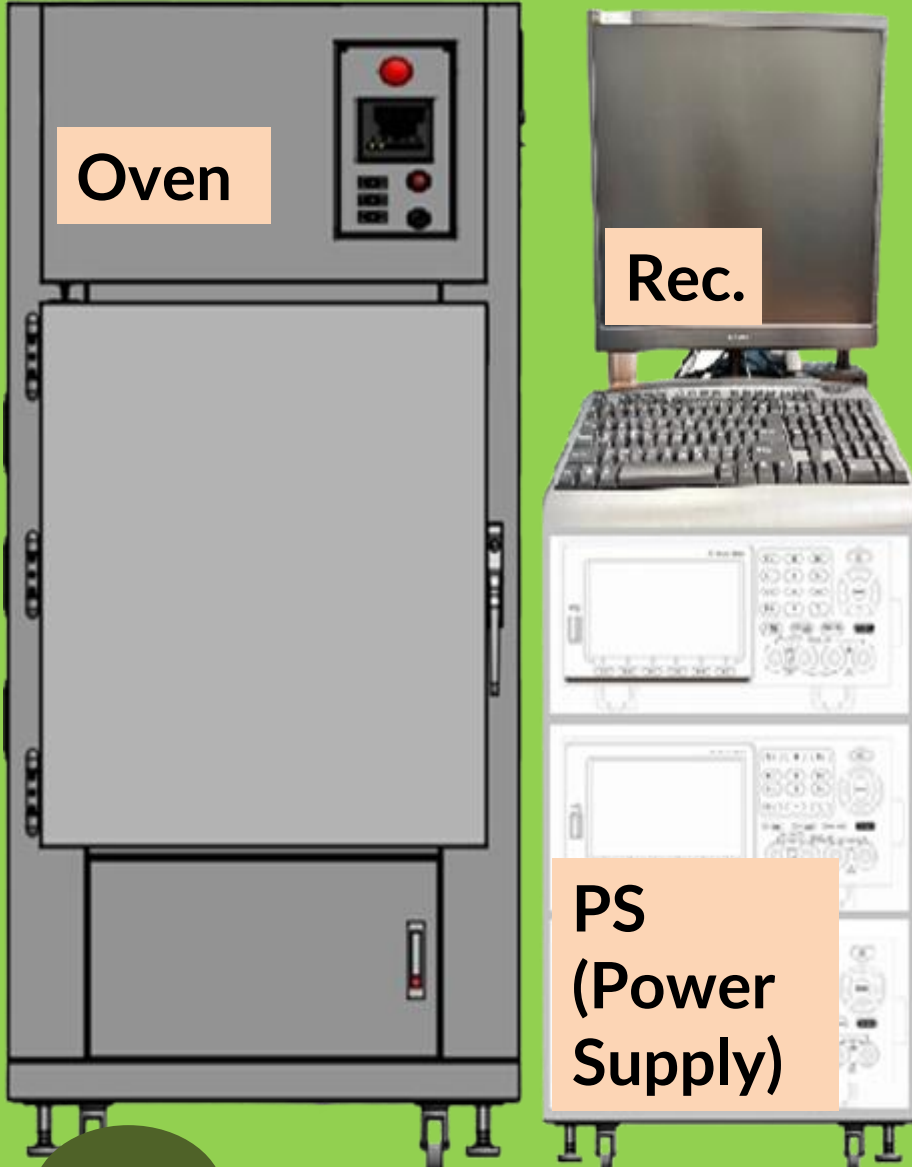
Messy Wiring

Difficult to Verify

/Troubleshoot

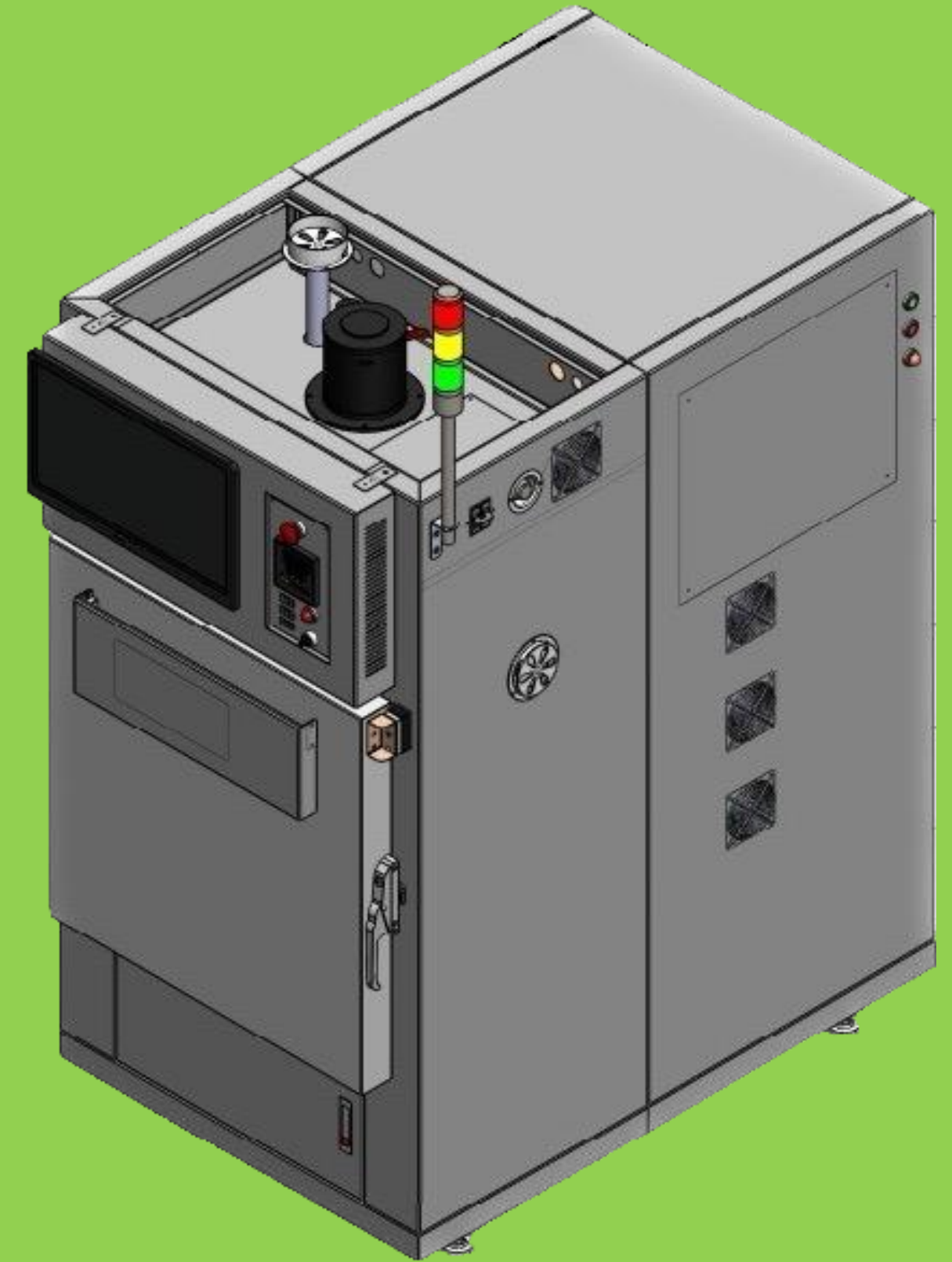
Time Consumes

(Setup/Verification/  
Troubleshooting, etc.)



# PIBI System

Power Integrated Burn-In System



# Features



PIBI System

**Integrated System  
(OVEN/Power System /  
Monitoring System)**

**Independent Channels**

**Quick Verification/**

**Enhanced Troubleshooting**

**Modular Power Supply**

**Quick Board Mounting**

**One-Button Startup**

**One-Button Data Export**

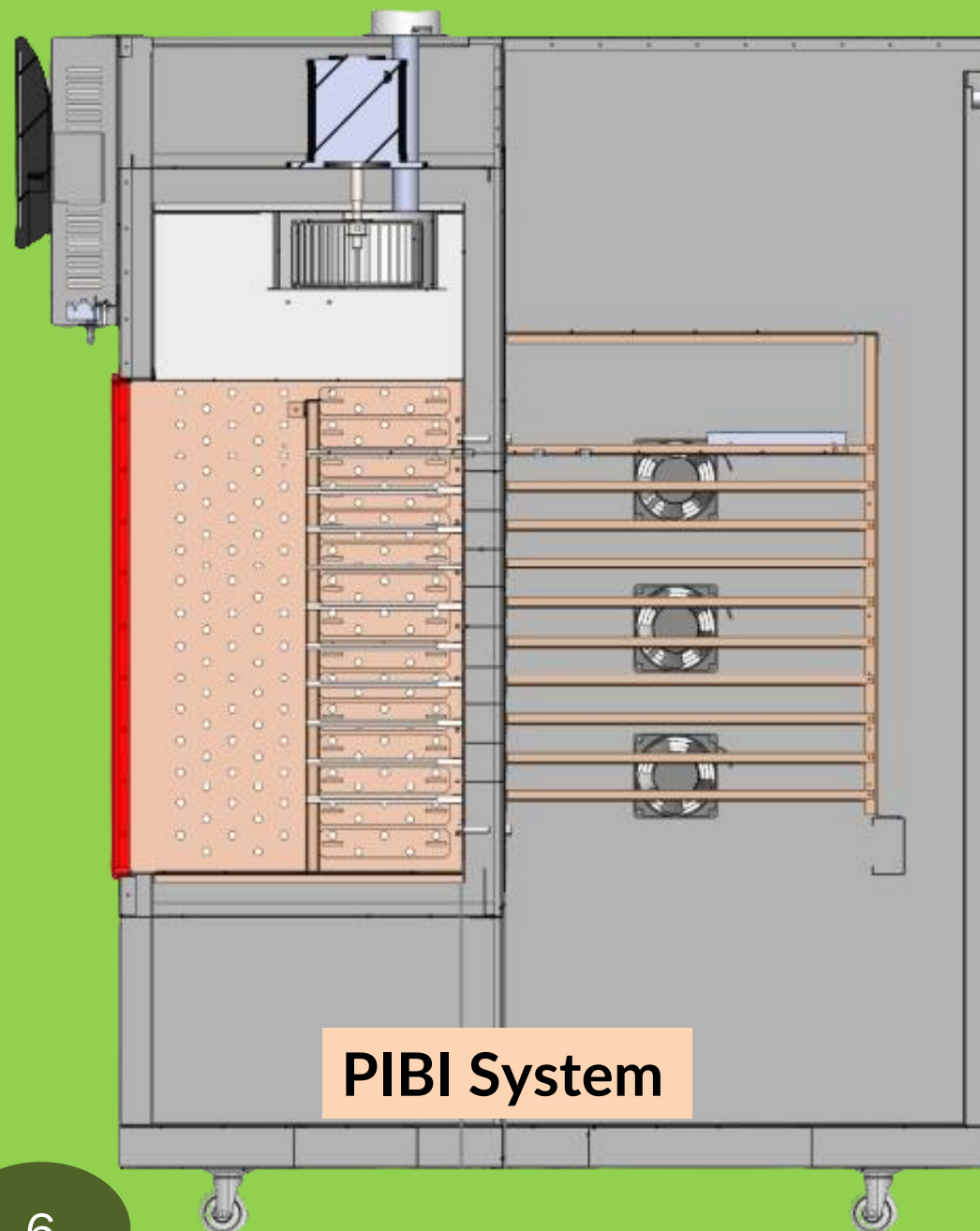
**Customizable Quantities**

**Custom Hardware/Software Design**



PIBI System

# Benefits



**Simple Setup**

**(Temperature / Time / Voltage / Current)**

**Reduced Workload Significantly**

**Enhanced Testing Quality**

**Increased Space Utilization**

**Cost Reduction**

# Functions

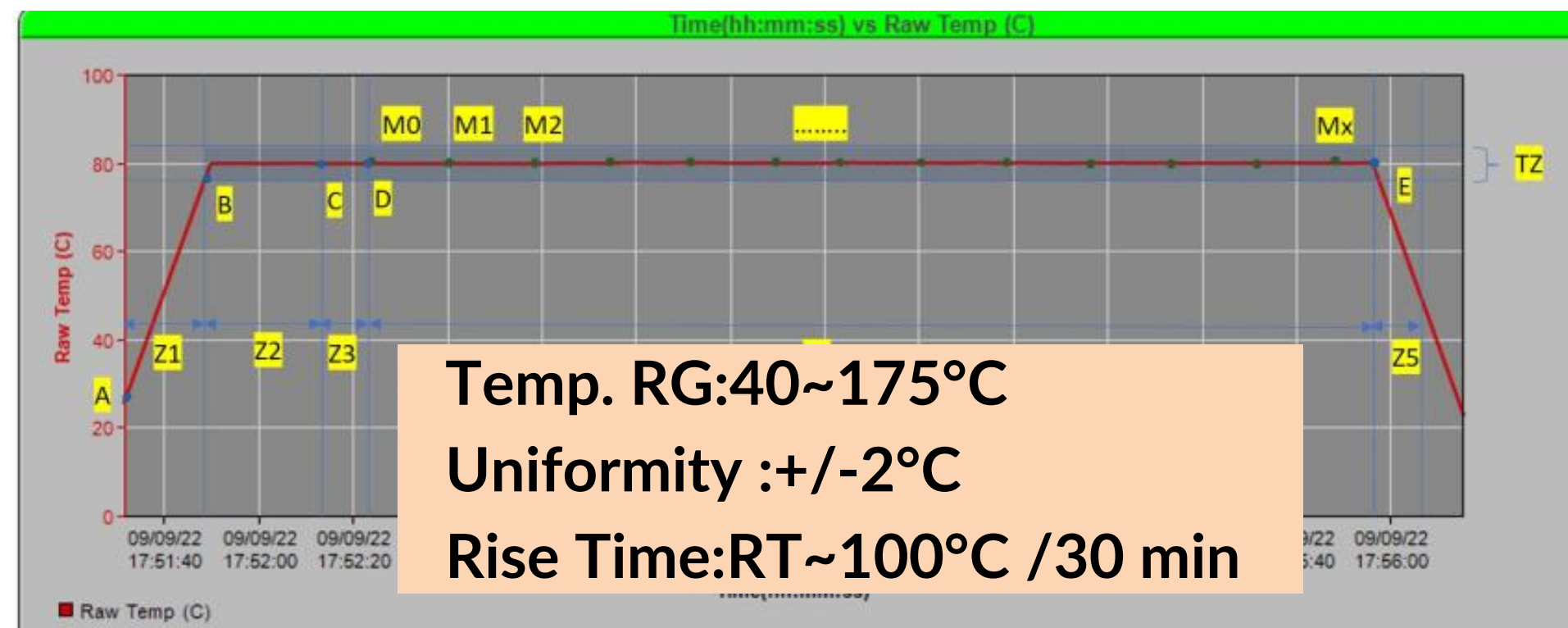
A

## Temperature Control

One-button Start

Automatic Cooling

Over-temperature  
Protection System



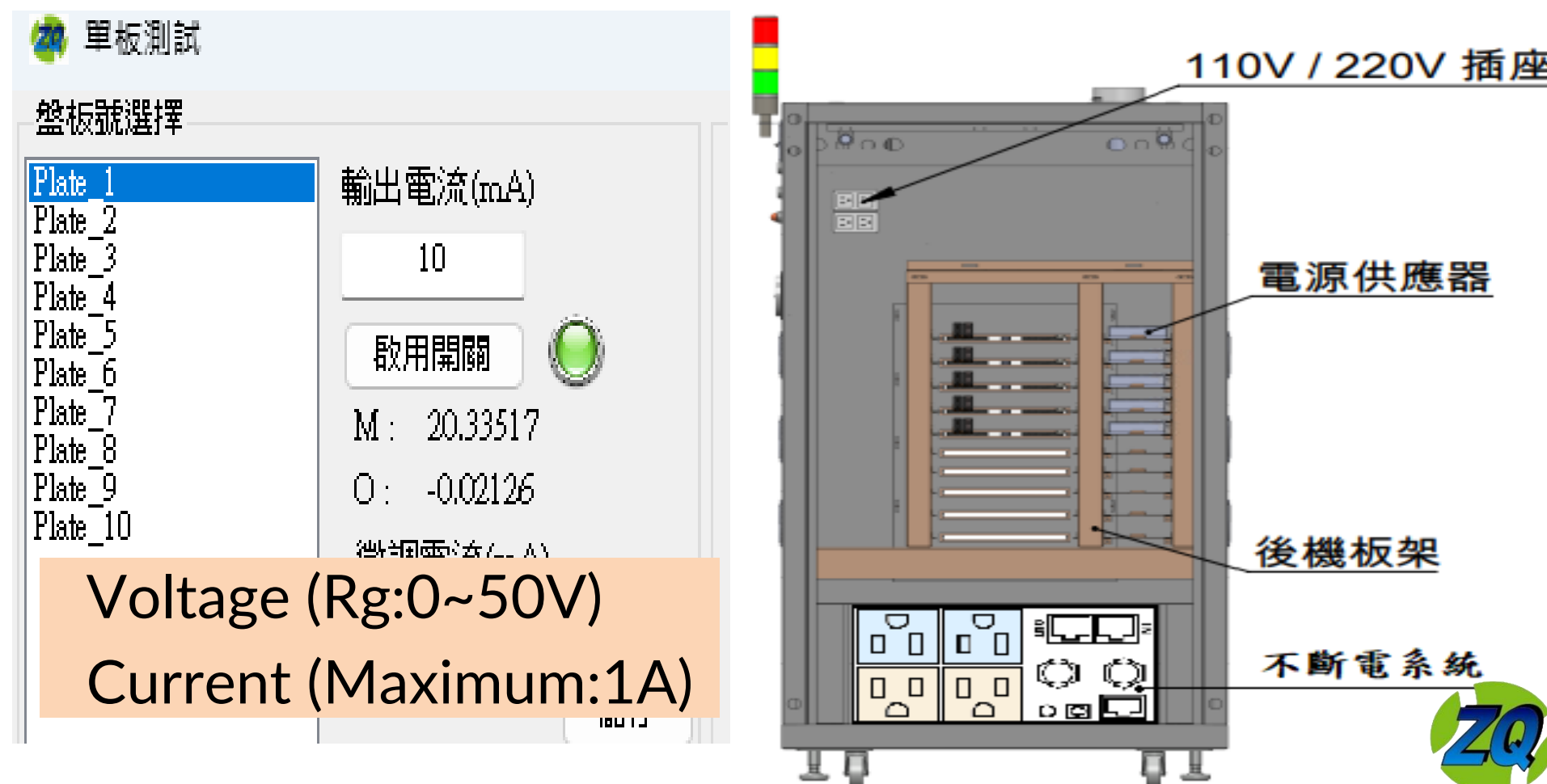
B

## Power Control

One-button Power On

Independent Power Supply

Uninterrupted Power System



# Functions

C

Burn-In Status

Pre-Test

Monitoring data

Timer

Indicator

Process info.

Temperature Chart

The screenshot displays a comprehensive software interface for a burn-in test system. It is divided into several functional areas:

- Control Panels:** Located at the top, these include sections for "Plate Selection" (listing Plate\_1 to Plate\_10), "Current Calibration" (with fields for Avg, Max, Min, Dev), and "Measurement Settings" (for current and voltage).
- Monitoring Data:** A central grid displays current values for 64 channels, with a "Pre-Test" label overlaid on the data.
- Timer and Process Info:** A panel on the right shows "Burn-In Status" as "老化中..." (Aging in progress), along with "Process Info" including start/end times and measurement counts.
- Indicator:** A vertical bar on the right side features status indicators for various components like "Fan", "Magnet", "Micro-switch", "Buzzer", "Emergency Stop", "Power", and "Power Status".
- Temperature Chart:** A graph at the bottom right, titled "Time vs Raw Temp (C)", shows the raw temperature rising from approximately 45°C to a stable 80°C over time.



# Functions

D

## Monitors & Records

Product Info.

Plate Info.

Device Info.

Time 、 Temp.

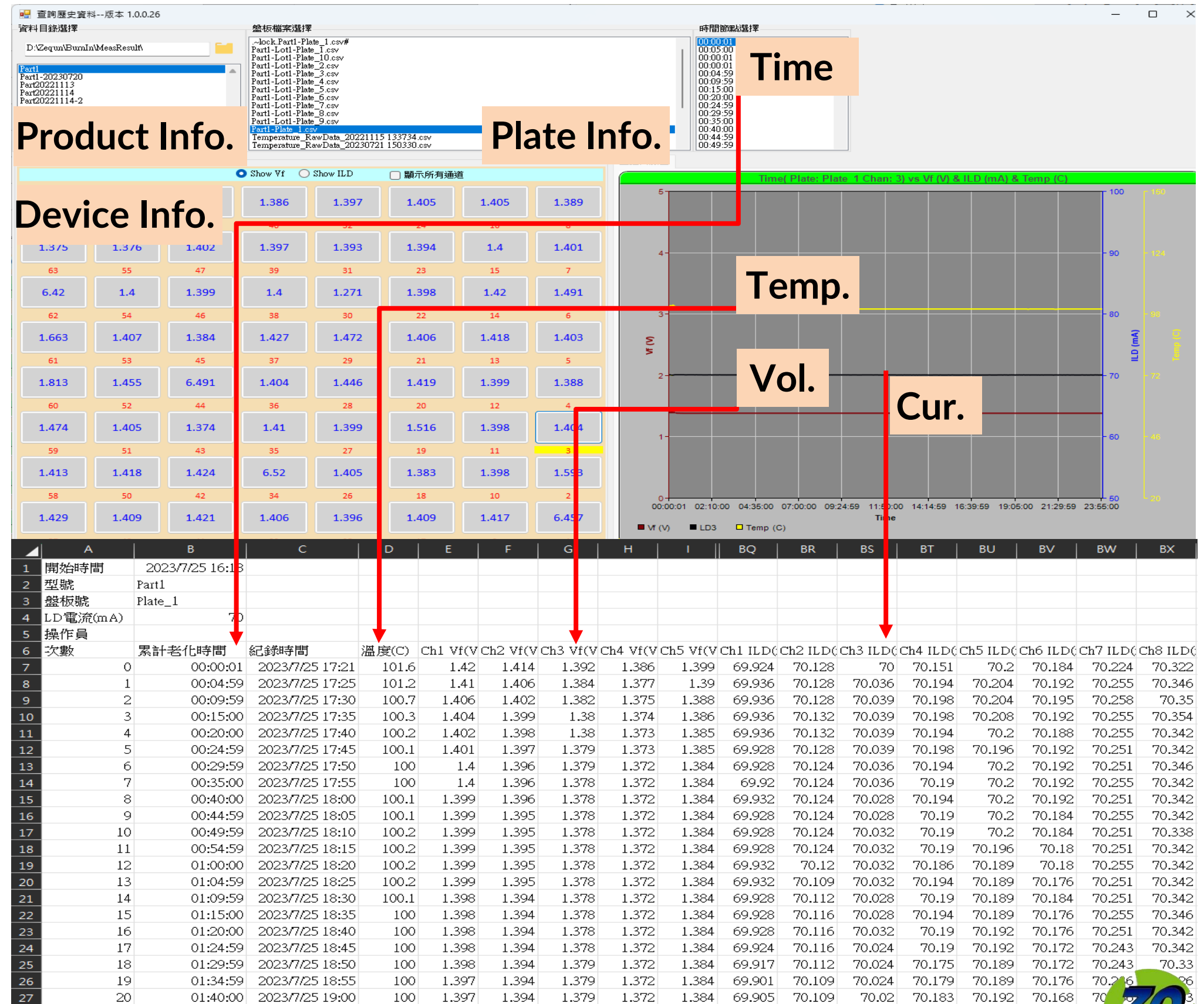
Voltage 、 Current

E

## Query Data

Excel CSV File

Traced By Time



# Functions

F

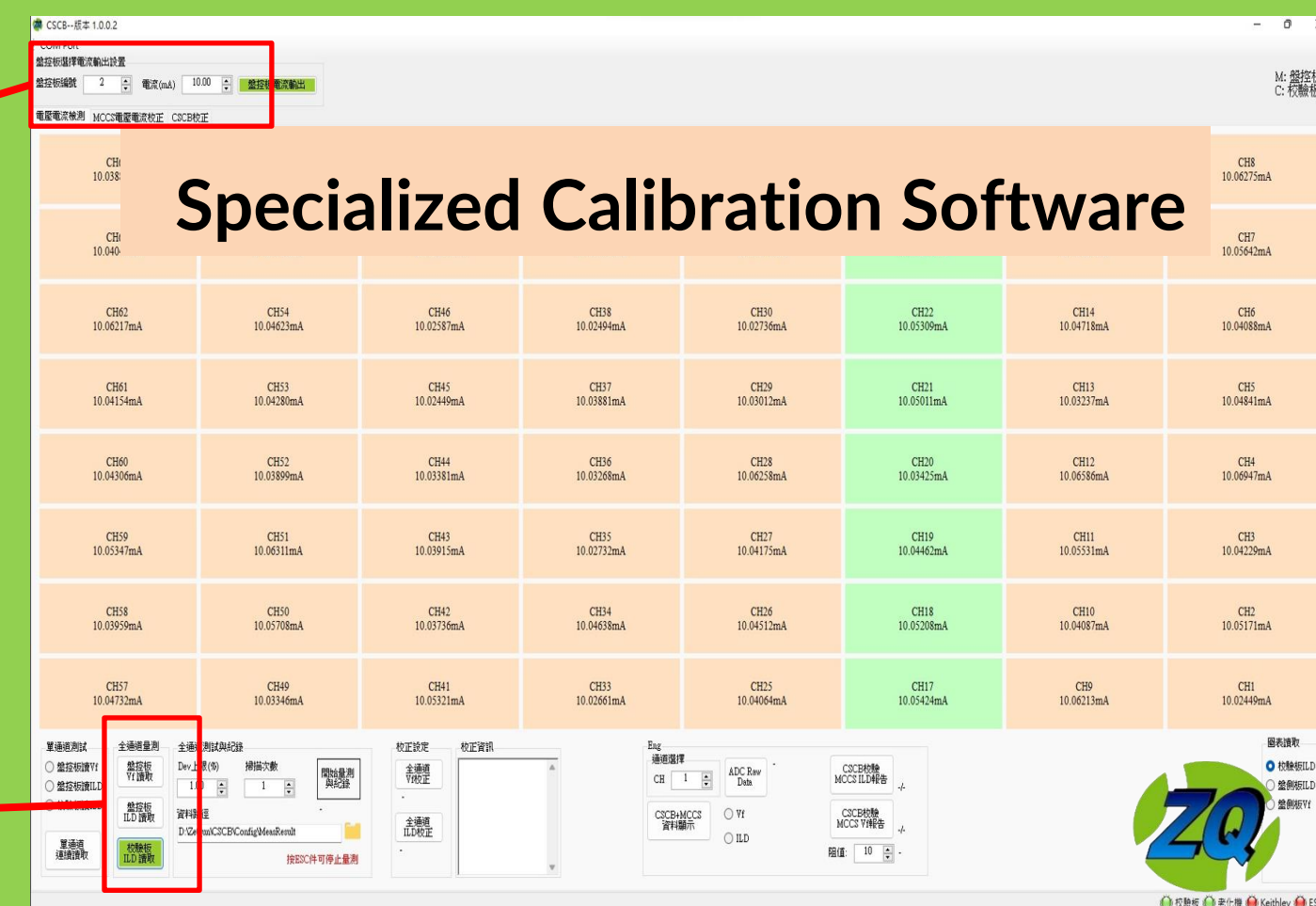
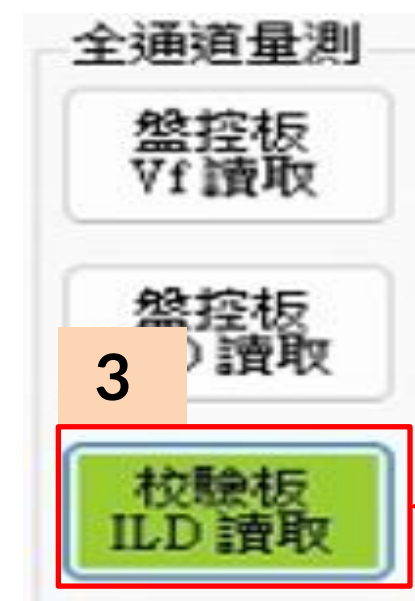
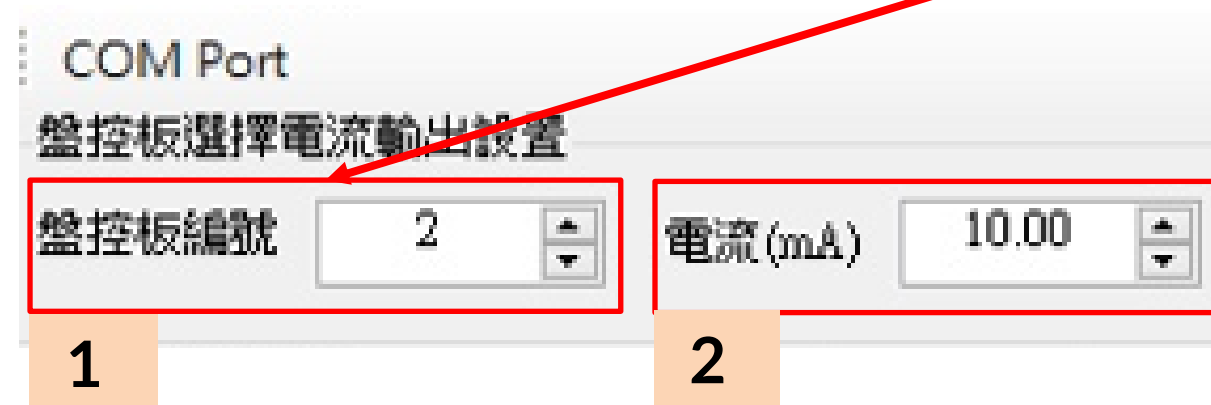
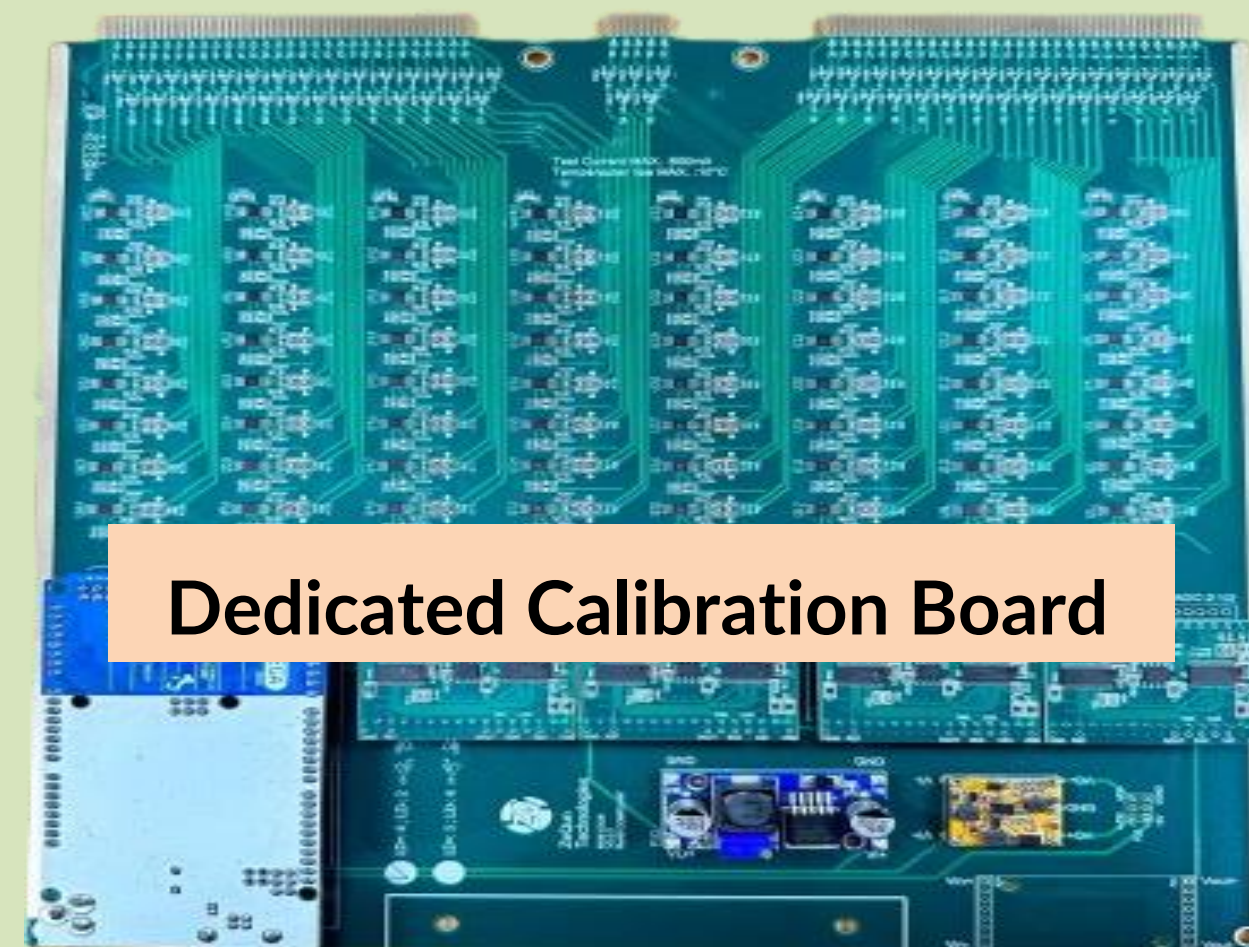
## Source Calibration

Dedicated Calibration Board

Specialized Calibration Software

Calibrate All Channels Power

Easy Calibration Procedure  
(Three Steps)



# Others

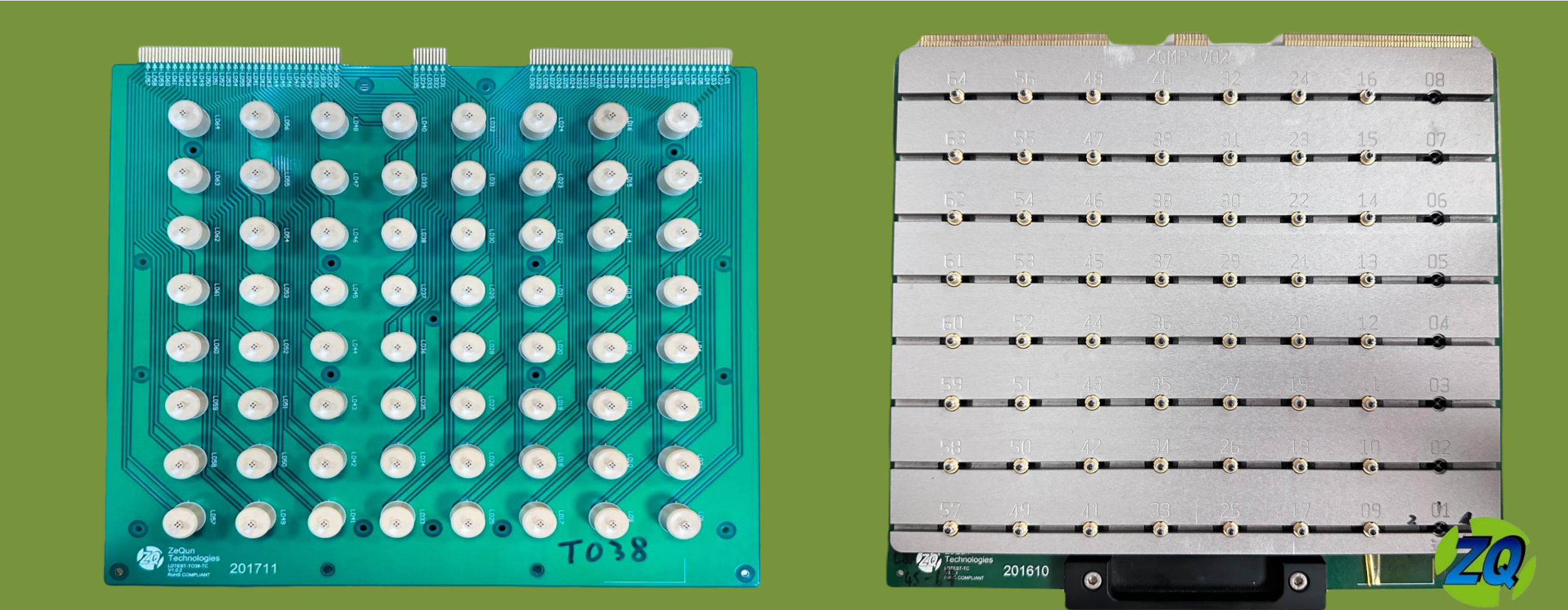


- 1.Indicator lights
- 2.Electric Exhaust
- 3.Display
- 4.Microswitch
- 5.Solenoid Valve
- 6.Door Handle
- 7.Keyboard and Mouse
- 8.UPS  
(Optional)

- 9.Emergency Switch
- 10.Temp. Controller
- 11.Thermocouple
- 12.Heating Light
- 13.Power Switch
- 14.Computer Button
- 15.USB Interface
- 16.DC 9V Power  
(Calibration Use)

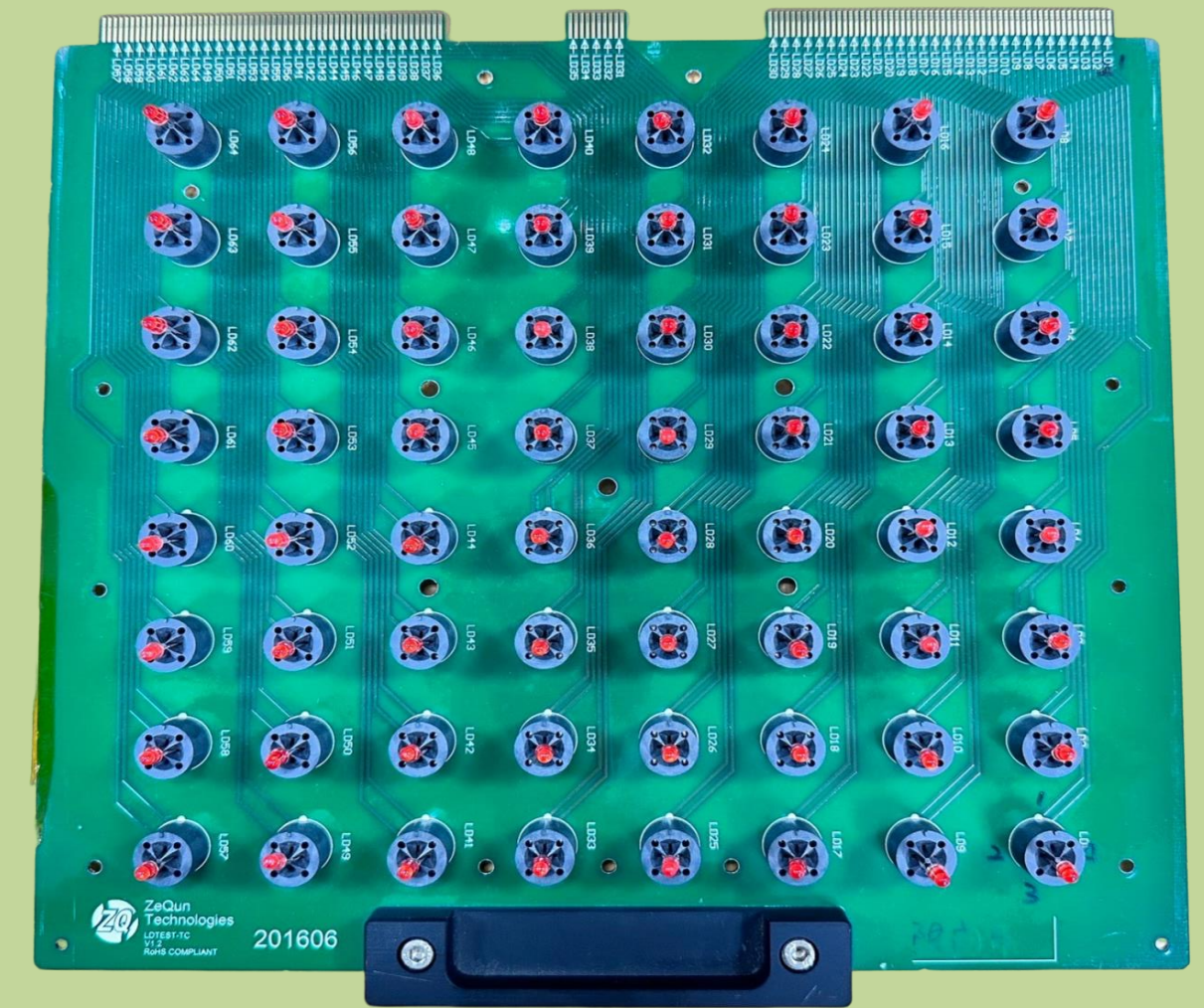


# Technical Services



# BI Board Design

- 1 Customization Design
- 2 Module Interface (Gold Finger)
- 3 Multi-Channel Design
- 4 Tolerant to 180°C

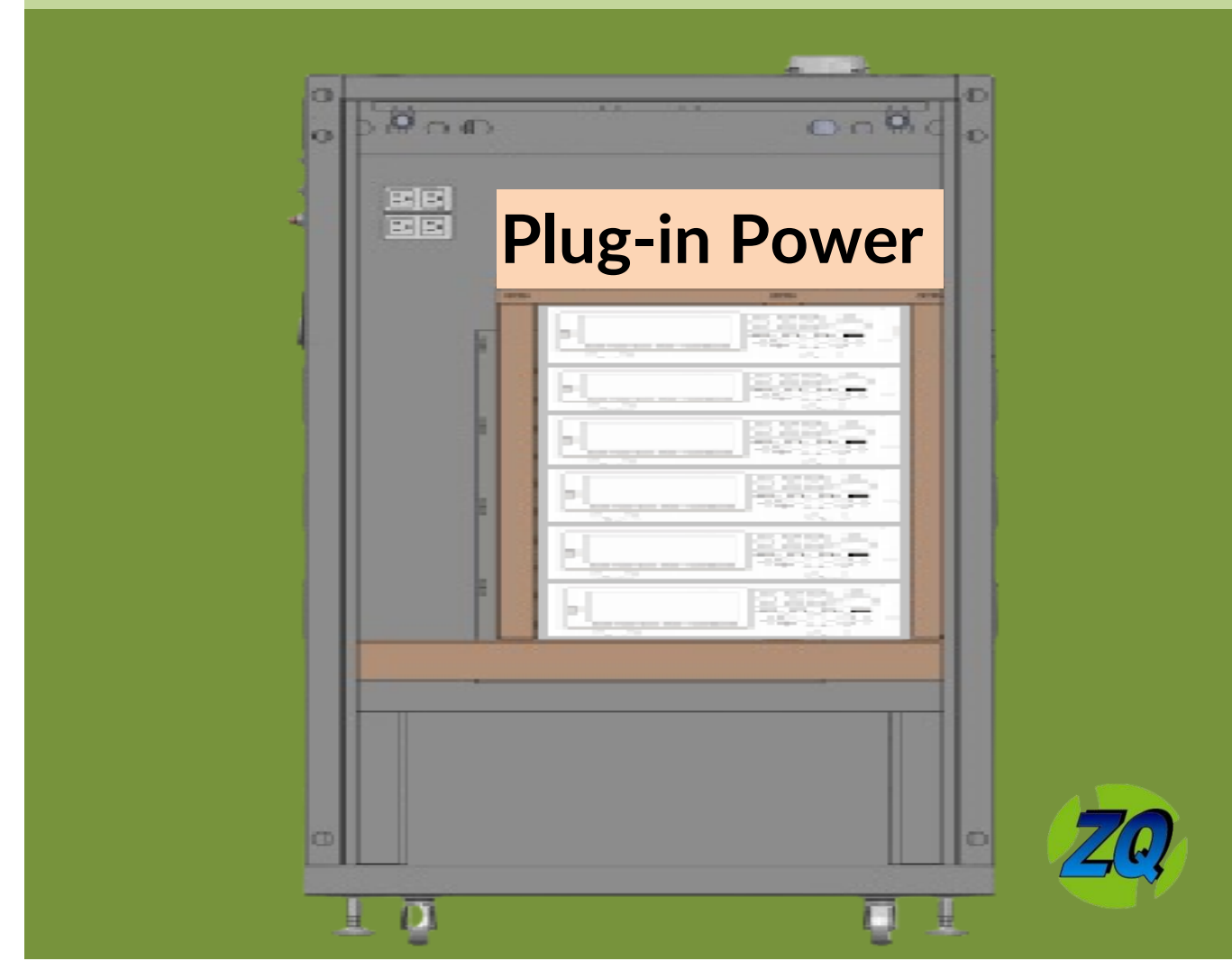
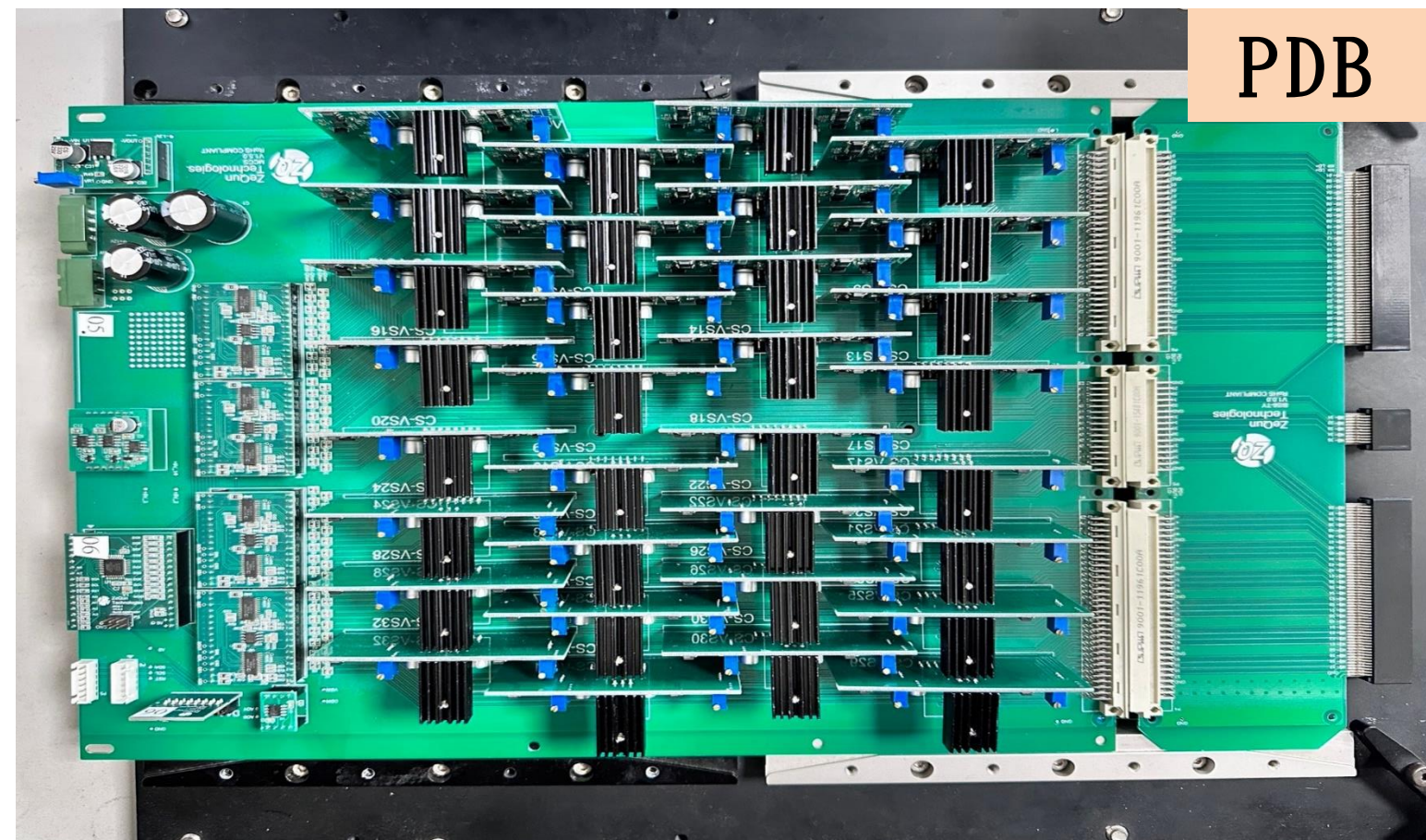


BI Board Design



# Hardware Engineering

- 1 Customized Power Supply
- 2 Plug-in Power Supply
- 3 Power Distribution Board(PDB)



# Software Engineering

1 Customized Software Services

2 Driver Integration  
Power Supply  
MCU

3 Free Software Bug Resolution

編輯設定檔 - DefaultSetting.xml

老化條件

總老化時間(HH): 24  
老化溫度(C): 100.0  
溫度視窗1(C): 5.0 (\*老化過程中, 超標時警告)  
溫度超標時間1(MM): 30 (\*持續溫度超標時間後, 進行中斷)  
溫度視窗2(C): 10.0 (\*老化過程中, 超標則直接中斷)  
恆溫時間(HH:MM): 0 : 10  
LD電流值(mA): 70 (\*仍可於主畫面修改)  
電流超標(%): 2.0 (\*電流超標, 即中斷)

階段性老化時間編輯

項次	停斷時間(hrs)
1	24

量測參數

是否量測  
量測間隔時間(min): 5

判斷條件

判定 Vf MIN 0 MAX 5  
 判定 ILD  絕對值 MIN 0 MAX 2  百分比

其他設定

是否定期回報MES  
回報週期(分): 10

設定檔案

設定檔名稱: D:\Zequn\BurnIn\Test Setting\DefaultSetting.xml

儲存設定 讀取設定 離開設定

Status: 成功載入 DefaultSetting.xml

客製化軟體

```
Public Class Form1
    Public Declare Function GetAsyncKeyState Lib "user32" (ByVal vKey As Integer) As Byte

    Public CSXB_RS232 As New cs_RS232
    Public ESW_RS232 As New cs_RS232
    Public Kei_Obj As New csK2400
```

驅動軟體整合

Q & A





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