

# ATE 2

## 自動測試設備



**Concord**  
TECHNOLOGY

振華科技有限公司  
**Concord Technology Ltd.**

**ATE2** 系統能夠提供UUT 在正常或最大限度的工作條件下尋找UUT 的性能問題，ATE 主要由五個部分構成：

- 安全穩定及可編程電壓源。
- UUT 的功能驅動器。
- 穩穩和精確的UUT 測量儀器。
- 友好、易編輯和多功能的用戶界面軟件。
- 精密和無噪音夾具。

**Concord's Automatic Test Equipment 2 (ATE 2)** system can provide Unit Under Test (UUT) operated at nominal or absolute maximum rating condition to find out the performance-oriented problems.

ATE 2 system is mainly constructed by five sub-systems:

1. Safety, Stable and Programmable Power-Up Source
2. UUT's Functional Drivers
3. Stable and Precise UUT's Performance Measurement Tools
4. User Friendly, Easy Edit and Multi-Function User Interface Software
5. Accuracy and Noiseless Fixture

## ATE2 測試系統的開發 ATE2 system introduction

### 電 源 Power-Up Source

ATE2 系統可提供多種供電電源，AC 電壓值從AC6V至240V，可編程正負限流 DC 電壓值從 DC24V至 + DC60V 和最大到 2A 的穩定電流來驅動 UUT 適當的操作條件。

**Concord's ATE 2 system** provides various power-up sources such as fused selectable AC voltage source from AC6V to AC240V, current limited programmable positive and negative programmable DC voltage source from -DC24V to +DC60V and stable current source up to 2A for driving UUT at suitable operation condition.

#### POWER:

AC 6V ~ AC 240V  
DC -24V~DC 60V  
MAX: 2A



### 功 能 驅 動 Functional Drivers

ATE2 系統功能驅動的目標是使 UUT 的功能通過量度工具或儀器表現出來，標準的UUT 功能驅動包括產生10MHz 正弦波及方波信號，音頻測試信號（1KHz/0dB, 1KHz/20dB,...），自動機械按鍵用于壓下開關和調節音量等。

ATE 2 system's functional drivers aimed to generate UUT's functions could be observed and measured by measurement tools or instruments. Standard UUT's functional driver including sine and square wave signal generator up to 10MHz, audio testing signal (1KHz/0dB, 1KHz/20dB, ...), automatic mechanical finger to push switch or tuning volume and so on.

### 測量工具 Measurement Tools

ATE2系統提供一套標準儀器用于測量UUT 輸出，例如：ATE System provides a set of standard tools for checking UUT output performance such as:

電流表	Current Meter
DC 電壓表	DC Voltage Meter
溫度感應器	Temperature Sensor
鳴聲感應器	Buzz Detector
LED 顏色感應器	LED Color Detector
交流峰峰值與有效值電壓表	AC Peak-to-Peak and RMS Voltage Meter
測量頻率、時間、波寬、次數的記數表和定時表	Counter and Timer for measuring frequency, time, Pulse Width and event times
其他 . . .	Other

對於特殊的測量，ATE2系統能夠控制 GPIB 儀器，例如：音頻分析，頻率數字，噪聲和示波器等用來測量 UUT 執行參數。

For special measurement, ATE 2 system can control General Purpose Interface Board **GPIB** instruments such as audio analyzer, frequency counter, E-loading, noise and ripple meter and so on for measuring UUT performance parameters.



### 強大的軟件系統 The powerful software

CONCORD 提供穩定及強大的軟件系統。

A mature powerful software developed by **Concord** can provides:

易編輯的測試程序	Easy Edit Testing Program
逐步的功能測試	Step by Step Functional Test
錯誤指示	Indicating the Failing Stet
統計測試結果	Statistic for Testing Results
自動印章	Auto Stamp
可讀條碼	Bar Code
易管理測試結果。	Easy manage testing result



# Excellence in ATE

## ATE2 特色舉例 Some projects

### ■ 空調機控制板 Air Conditioner Control Board

ATE2 自動檢測以下項目:

ATE2 automatic step by step functional test:

操作電流	Operating Current
LED 顏色	LED Color
嗡鳴器聲量	Buzz
繼電器接觸阻抗	Relay Contact Impedance
繼電器響應時間	Relay Reaction Time
遙控功能	Remote Control Function
脈沖寬度	Pulse Width
頻率	Frequency
自動機械按鍵	Automatic Mechanical Finger

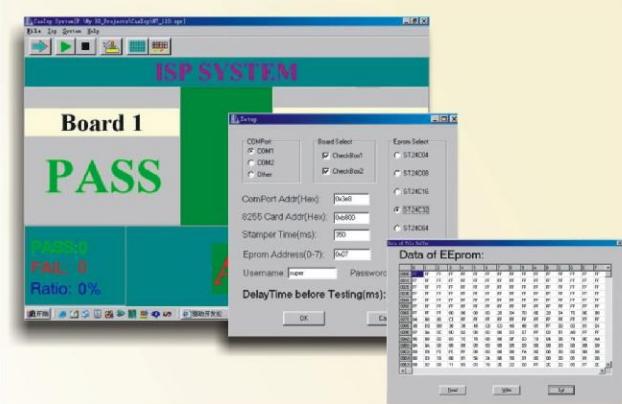


### ■ 汽車面板 Car panel

ATE2 自動檢測以下項目:

ATE2 automatic step by step functional test:

輸入電流	Input Current
輸出電壓	Output Voltage
讀/寫 EEPROM	Read/Write EEPROM
頻率	Frequency
速度	Speed
ADC 調節	Turning ADC
溫度	Temperature

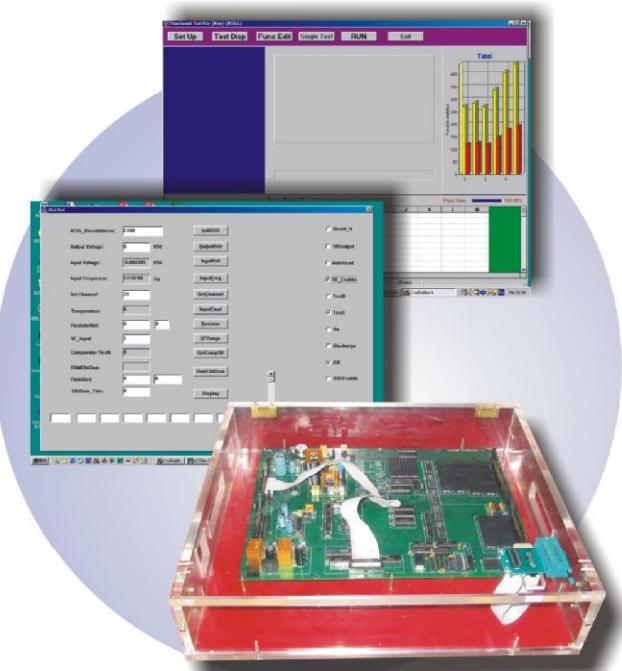


### ■ 數碼相機 Digital Camera

ATE2 自動檢測以下項目:

ATE2 automatic step by step functional test:

數字選擇限流電壓源	Digital Selected Current Limited Voltage Source
輸出頻率	Output Frequency
讀取外部ROM	Read External ROM
溫度	Temperature
I/O 通道	I/O Terminal
待機電流	Standby Current
快門時間	Shutter life Time
校驗和	Check Sum



# ATE 2

## ■ 電池充電器 Battery Charger

ATE2 自動檢測以下項目:

ATE2 automatic step by step functional test:

喚醒時間	Wake-Up Time
喚醒電流	Wake-Up Current
輸出電壓	Output Voltage
輸出電流	Output Current
雜波	Ripple
噪聲	Noise
短路	Short-Circuit Current

## ■ 3D 無線耳機 3D Headphone

ATE2 自動檢測以下項目:

ATE2 automatic step by step functional test:

輸入電壓	Input Voltage
輸入電流	Input Current
輸出均衡	Output Channel Balance
失真	Channel Distortion
信噪比	S/N
頻率響應	Frequency Response
分離度	Channel Separation
VCOT 頻率	VCOT frequency
最大失真度	Maximum Distortion Factor

## ■ 短路器控制板

MCU 自動檢測以下項目:

MCU automatic step by step functional test:

電阻測試	Resistor Test
靜態工作電流	Stand by Current
漏電流	Stand by Current
濾波電容電壓	Capacitor Voltage
漏電不觸發檢測	No unit Trip
漏電觸發檢測	Unit Trip

# 專業開發中心 用戶盡可度身訂造

User can require Concord to develop a software which only focus on the user's produce and requirement.



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