

Supertest

In-Circuit Tester T623F



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T623F In-Circuit Tester

Hardware Features : 硬件特性

- **High-speed 高速**
High-speed performance with Reed Relay
超速性能使用磁簧開關
- **Accuracy 高精度**
16 bit digital-to-analog and analog-to-digital converter offers 64K resolution for accurate measurements.
使用16位 D/A 和 A/D , 具備64K分解度, 獲得高精度測試。
- **Reliable measurement 可靠測量**
Direct Digital Synthesis (DDS) generates low-distortion test waveform with high frequency stability. Proprietary advanced digital filtering technology (DFT) provides an excellent signal-to-noise ratio for stable measurement.
直接合成數碼波形產生器 (DDS) 及數碼濾波技術 (DFT) 提供可編程的正弦波, 具有穩定, 低失真, 高訊噪比, 從而提高了測試的可靠性。
- **Kelvin method 開爾芬**
6-point measurement can be programmed to 8-point Kelvin method for measuring very small resistor and inductor values.
6線測試可以由軟件設置為開爾芬8線測試用以精確測量低電阻及電感。

- **eScan 易掃描**
Detects the open pins of SMT IC, BGA package and IC pin at the bus.
可檢測 SMT IC, BGA 與匯流排上 IC 腳的開路狀況。

Special Testing Features: 獨特測試功能:

- **Functional Test Module 功能測試模塊**
Applies power to PCB to check signals. It also can connect external signal source, instruments and oscilloscope for further critical performance test.



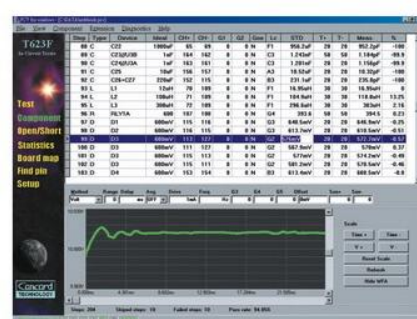
提供電源作功能測試, 更可連接外置訊號源、儀器、示波器作關鍵的履行測試。

- **Electrolytic capacitors reverse 電解電容反插檢測**
A reverse-mounted electrolytic capacitor can be detected by probing the aluminum case of the component.
透過測量外殼的電壓或漏電電流可判別電容是否反插。

- **3-Point test 三點測試**
Bipolar Transistor : on/off and hFE test
FET : on/off and V_{ds} test
可區別功率、訊號和齊納二極管。晶體管: 開關或hFE測試
FET: 開關和V_{ds}測試
- **SCR, DIAC test 可控硅, 雙向可控硅測試**
SCR Holding Current, DIAC Breakover Voltage.
可控硅保持電流, 雙向可控硅斷點電壓。

Software Features : 軟件性能

- **User friendly Windows 採取易用的視窗操作界面。**
- **Ten highest component failure display 顯示十個最多錯誤元件情況**
- **Super debug mode 超强測試方式**
Permits fast trouble shooting.
Programmable options include driving current, delay time and testing frequency.
主要針對作進一步微調學習和測試程序, 優化測試結果, 可編改驅動電流, 延遲時間及測試頻率。



- **Waveform analyzer 波形分析儀**
Assists in determining required delay time for accurate measurement.
Patent No.: 2003201320894
直接觀察測試波形, 以便更改測試的延遲時間, 無須盲目多次嘗試。
專利編號: 2003201320894

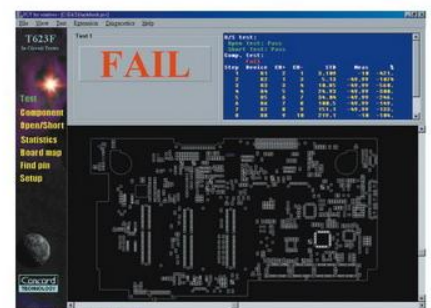
- **Easy to program 易于編程**
Programming is easily accomplished through Auto Learn, step testing and individual editing.
Tolerances can be globally edited ; guarding, skip or waiting time are edited individually.

測試參數可通過自學測試而輕易獲得, 強大的編輯器, 波形分析, 自動隔離, 自動測試條件調整, 提示輸入錯誤資料 (例如: 當測電感時, 但錯誤輸入電容類別) 等眾多的手段。

- **Functional Platform 功能測試平臺**
User friendly table form programming technique is very easy to use and support.

表格輸入編程方法, 易學、易用、易維護。

- **Boardmap fault locator 出錯元件顯示**
Automatic graphic display of fault location
顯示電路板的圖形并自動顯示出錯元件的位置



T623F 在 線 測 試 儀

Full testing features :

全面測試功能

- Auto learn with measurement/test methodology optimization
- Auto guarding
- Missing IC and orientation check
- IC protective diode learning and test
- Loop test
- Pin number search function
- Self diagnostic function
- Small capacitance values are measured by canceling the stray capacitance between the scanner and probes
- Provides daily or accumulated pass/fail statistics of the test results
- A fixed voltage generator offers a fast method of charging the capacitors and saves time during testing

自動學習，優化和調整
測試方法
自動隔離
IC漏插及方位檢測
IC保護二極管的學習和
測試
重復測試
針號檢索功能
自我診斷功能
把系統電容抵消以準確
量度小電容

提供每日或累積測試結
果報告
恒壓源充電方式能提高
測試速度

Options : 選項

● Dual fixture head system 雙壓頭系統

For the same Unit Under Test (UUT) or a different UUT reduces handling time for PC board loading and unloading.

加一個雙壓頭可測試兩種不同的電路板，使生產更靈活，提高效率。



● GPIB Interface GPIB 界面

It provides a user-friendly environment to apply dynamic functional tests. The developed Agilent and Seintek instruments to build in the system are : Universal/MultiMeter counter, Sweep/Function Generator, Power Supply, DMM, scope...etc.

透過可擴展及靈活易用的界面處理動態功能測試，已成功接駁 Agilent 和 Seintek 的可編程：萬用計數器、掃描/函數信號發生器、電源、DMM...等，以應付不同需求的功能測試。

● Digital I/O Card 數碼接口板

The direction of Digital I/O is programmable. The digital input and output are both TTL and CMOS compatible.

數碼輸入或輸出的方向可編程，與 TTL 和 CMOS 兼容。

● Boundary-scan 邊界掃描

Component instructions, scan-path lengths and bit sequences is automatically handled by the software. In-system Programming (ISP): provides EEPROM, PLD and System level programming.

元件結構，掃描路徑長度和信息單位順序可以通過軟件自動控制。在系統裏編程：提供 EEPROM, PLD 和系統的編程。

● Nand Tree Test 與非門樹幹測試技術

It is the power up non-vector test for VLSI to obtain a very reliable connective result.

這內置式通電非向量測試、可檢測VLSI的開路狀況，有非常可靠成果。

● Auto stamp 自動印章

Imprints a stamp, indicting passed UUTs. 自動打印圖章在被測部件，以顯示通過檢測合格。

● External discharge module 外置放電模塊

Discharges residual high voltage and ESD on UUT before testing. Protects input circuits. 釋放殘余高壓電以保護被測電路板。

● AutoPro 628F In-line system 連線測試系統



In-line Tester connected with an OK / NG transport system.

配有好/壞板傳輸的連線測試系統。

● Statistics process control 統計流程控制

To link the ICT with LAN for quality management, test data acquisition and analyses.

將ICT聯網，獲得詳盡測試數據和分析用作品質管理。

● Bar code 條碼記錄

Keeps track of UUTs test status and failed records. 保存被測部件測試狀況與失效報告。

● Fixture design software 針床設計軟件

It provides automatic fixture design, probe selection and test program.

提供自動的針床設計，探針選擇和測試程序。

● HP TestJet technology

HP TestJet 技術

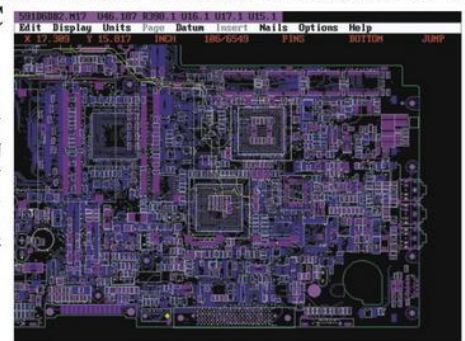
Available for SMT application to detect open pins of SMT semiconductor packages.

HP TestJet 技術可用于測試SMT元件的開路和空焊。

● Repair station 維修工作站

Boardmap fault locator software is installed in a separate PC for repair guidance .

透過另一臺電腦和輔助維修軟件可迅速找出開路、短路和零件錯誤位置。



Specifications

技術指標

General:

Basic channels installed: 384 test channels

Maximum expandable test channel:

1024 test channels (expandable to 2048 test channels)

Configuration of scanner board:

High-speed reed relay technology with 6-wire measurement and programmable 8-wire method, 64 test channels per board

Guarding circuitry : 5 guard points per step

Signal source driving:

DC measure : programmable current source 0.1 μ A - 20mA
programmable voltage source 0V - 10V

AC measure : DDS sine wave programmable frequency 1Hz - 500KHz

Open/short Testing

2 Programmable ranges from 1 Ω to 99 Ω

Open/short

Testing current: 1mA - 10mA

Testing speed: 500 test points per second

Resistance

Range: 0.1 Ω - 100M Ω

Test speed: 2.6ms - 100ms(Typical: 2.6ms)

Capacitance

Test range: 1pF - 50,000 μ F

Test speed: DC measurement method: 8.6ms - 60ms

AC measurement method: 18ms - 36ms

ECAP polarity check Case voltage measurement

Inductance

Test range: 1 μ H - 40H

Test speed: 15ms - 55ms

Diode, Zener, Transistor, FET, SCR Holding Current, DIAC Breakover Voltage, Photocoupler and IC missing/orientation test

Programming steps Approx.10,000 test steps per test program

Printer 40 columns

Main CPU

Intel celeron 3.06GHz or above

Memory: 2G or above

Hard disk: 250G or above

Operation system: Windows 2000 or above

Functional test module:

power up: 10 channels

voltage: 0V - 10V in 100mV steps

Current: 1A max. (2 channels)

0.5A max. (other channels)

Voltage output : 3 individual D/A output with 10 channels each

Voltage: 0V - 10V in 10mV steps

Current: 100mA max.

Measure DC Voltage: 0V - 10V

Measure Frequency: 10 channels

Range: DC - 13Mhz

Input voltage: 0.5V - 5V

Accuracy: 2%(1KHz - 13MHz)

Threshold: variable, in 100mV steps

Resistor Load: 10 channels

Range: 10 Ω - 100K Ω , in 10 Ω steps

Power: 0.5W (10 Ω - 100 Ω)

0.25W (100 Ω - 100k Ω)

Type of fixture:

Sizes: Pneumatic: 15in. \times 22in. (381mm. \times 533mm.) max.

vacuum: 17in. \times 20in. (432mm. \times 508mm.) max.

Physical Dimension

L: 45.3in. (1150mm) W: 27.8in. (705mm) H: 59.5in. (1510mm)

Electrical supply requirement:

Operating voltage: 110V/220V Frequency: 50Hz / 60Hz

Operating environment:

Temperature: 0 - 45 $^{\circ}$ C humidity: 10 - 90% compressed air: 4 - 6 bar

The contents of this brochure may change without notice due to design improvements.

一般情况:

基本測試通道: 384個測試通道

最大測試通道: 1024個測試通道 (可擴充到2048個通道)

測試板配置:

使用高速磁簧開關技術, 6線測量與可編程8線測量,
每通道板容量64個通道

隔離電路: 每測試步驟5個隔離點

信號源: DC 測量 可編恒流 0.1 μ A - 20mA

可編電壓 0V - 10V

AC 測量 DDS正弦波可編頻率: 1Hz - 500KHz

開路/短路測試

1 Ω - 99 Ω 之內二級可編程

測試電流 1mA - 10mA

測試速度 每秒500個測試點

電阻

測試範圍 0.1 Ω - 100M Ω

測試速度 2.6ms - 100ms(Typical:2.6ms)

電容

測試範圍 1pF - 50,000 μ F

直流測試: 8.6ms - 60ms

交流測試: 18ms - 36ms

ECAP 極性測試 外殼電壓量度

電感

測試範圍 1 μ H - 40H

測試速度 15ms - 55ms

二極管, 齊納二極管, 場效應管, 可控硅保持電流, 雙向可控硅
斷點電壓, 晶體管, 光電耦合管和IC的保護二極管

元件測試步數: 每測試程式最多可有10,000步的測試

列印機: 40行高速列印機

中央處理器: Intel celeron 3.06GHz或以上

存儲器: 2G或以上

硬盤: 250G或以上

操作系統: 視窗 2000或以上

功能測試模式:

直流電源輸出: 10個通道

電壓: 0V - 10V 精密度100mV

電流: 最大1A (只限兩通道)

最大0.5A (其餘通道)

直流電壓輸出: 3組獨立D/A輸出, 每組10個通道

電壓: 0V - 10V 精密度10mV

電流: 最大100mA

直流電壓測試: 電壓: 0V - 10V

頻率測試: 10個通道

範圍: DC - 13MHz

電壓輸入: 0.5V - 5V

門檻值可變化 精密度100mV

電阻負載輸出: 10個通道

範圍: 10 Ω - 100K Ω 精密度10 Ω

功率: 0.5W (10 Ω - 100 Ω)

0.25W (100 Ω - 100K Ω)

針床類型:

氣動針床: 15in. \times 22in. (381mm. \times 533mm.) max.

真空針床: 17in. \times 20in. (432mm. \times 508mm.) max.

型能:

尺碼: 長 1150毫米 寬 705毫米 高 1510毫米

電源要求:

電壓: 110V/220V AC 單相電頻: 50Hz/60Hz

標準工作環境:

溫度: 0 - 45 $^{\circ}$ C 相對濕度: 10 - 90%

氣壓: 4 - 6標準大氣壓力



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