



Supertest[®]

In-Circuit Tester

T800FV



T800FV In-Circuit Tester

Special Testing Features:

獨特測試功能:

- **Functional Test Module** 功能測試模塊
Applies power to PCB and check signals. It can also connect to 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、示波器作關鍵的性能測試。

- **3-Point test** 三點測試 FET: 開關和 V_{ds} 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

- **SCR, DIAC test** 可控硅, 雙向觸發二極管
SCR Holding Current, DIAC Breakover Voltage
可控硅保持電流、雙向可控硅斷點電壓

- **Unique ICT which combines with visual test (lighting component)**
獨特ICT結合視像檢測(發光零件)
Pioneer in color distinguishment software interface



首創對發光零件進行分辨顏色的系統操作界面

- **IIC & ISP programming** IIC及ISP 編程
Read/Write 93C & 24C series EEPROM
Read/Write Register in ICs
對93C及24C系列EEPROM進行讀寫功能
對ICs寄存器進行讀寫功能

- **24 Digital I/O Ports**
24 數字輸入/輸出端口

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
- **Accurate** 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分辨率, 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

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

- **Capability of external camera connection** 可外接視像頭
With visual functional test board that can distinguish color by vision test
內置視像功能測試模塊, 對發光零件可做視像檢測分辨顏色。

Software Features: 軟件性能

- **User friendly Windows 2000**
采取易用的示窗2000操作界面。

- **Super debug mode**
超強測試方式
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.

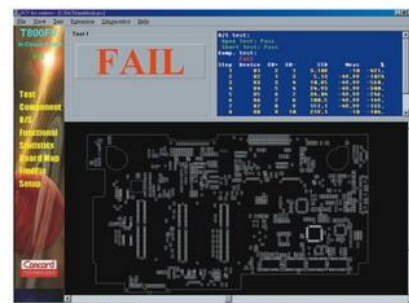
測試參數可通過自學測試而輕易獲得, 強大的編輯器, 波形分析, 自動隔離, 自動測試條件調整, 提示輸入錯誤資料(例如: 當測電感時, 但錯誤輸入電容類別)等眾多的手段。

- **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



T800FV 在 線 測 試 儀

Full testing features :

全面測試功能

- Auto learn with measurement/test methodology optimization
- Auto guarding
- Ten highest component failure display
- 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
- Electrolytic capacitors reverse
- 4-point Kelvin method to measure very small resistor
- 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
顯示十個最多錯誤元件
情況
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

電解電容反插檢測
開爾芬4線測試用以
精確測量低電阻
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

- Auto stamp** 自動印章
Imprints a stamp, indicating 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 T828F In-line system** 連線測試系統



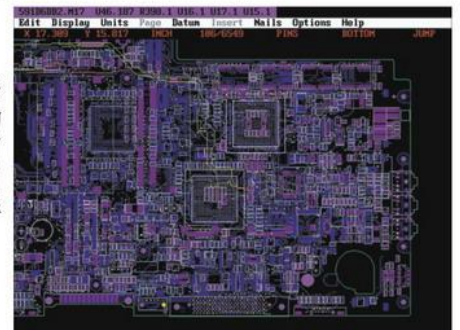
In-line Tester connected with an OK / NG transport system.

配有好/壞板傳輸的連線測試系統。

- 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.
Number of IC tested: 63(standard), 1008(max.)
Test time: 2.4ms/pin
HP TestJet technology patent No.: #5,254,953
HP TestJet 技術可用于測試SMT元件的開路和空焊。
IC測試數量: 63 (標準), 1008 (最高可達)
測試時間: 2.4ms/針
HP TestJet technology 專利編號: #5,254,953
- 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。



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 Test 邊界掃描

Check ID code of the Boundary Scan ICs

Interconnection test between Boundary scan ICs

檢查邊界掃描IC的ID碼

測試邊界掃描IC之間的開路

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 - 50mA
programmable voltage source 0V - 10V
AC measure : DDS sine wave programmable frequency 1Hz - 1MHz

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

High voltage test up to 40V (Option)

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
Intel celeron 3.06GHz or above

Main CPU

Memory: 2G or above
Hard disk: 250G or above
Operation system: Windows 2000 or above

Functional test module:

power up: 10 channels
voltage: 0V - 12V 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 - 50V
Measure AC voltage:10V(RMS)
Power source current Measurement: 5uA-1A
Measure Frequency: 10 channels
Range: DC - 13MHz
Input voltage: 0.5V - 5V
Accuracy: 2%(1KHz - 13MHz)
Threshold: variable, in 100mV steps

24 digital I/O Ports

Jtag controller

Type of fixture:

Sizes: Pneumatic: 15in.×22in.(381mm.×533mm.) max.
vacuum: 17in.×20in.(432mm.×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.

一般情況:

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綫測量與可編程8綫測量.(第二代技術)
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
測試速度 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

高壓測試可達 40V (選配)

二極管, 齊納二極管, 場效感應管, 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
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 - 12V 精密度100mV
電流: 最大1A (只限兩通道)
最大0.5A (其余通道)
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 - 50V
交流電壓測試: 電壓: 10V(RMS)
內置電源電流測試: 5uA-1A
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

24個數碼I/O 端口

Jtag 控制端口

針床類型:

氣動針床: 15in.×22in.(381mm.×533mm.) max.
真空針床: 17in.×20in.(432mm.×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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