



## Functional ATE & Power Supply Testers

Military and Aerospace Test Systems  
 Functional ATE Systems  
 Power Supply Test Systems  
 Hi-Pot Test Systems  
 ESS / Burn-In / Vibration Monitoring Systems  
 Manual Test Systems  
 Test Fixtures and ITAs  
 Box Builds and Sub-Assemblies  
 Switching and I/O Cards  
 Custom Cabinets and Accessories



*FineTest Commercial Test Systems  
are used by many diverse manufacturers  
and end users including the following:*

*TDK/Lambda*

*S.A.F.T.*

*Jabil Circuits*

*Medtronics*

*ABB CEAG*

*Resonant Power*

*EOS Corporation*

*Nortel Networks*

*On-Line Power*

*Racal Datacom*

*P-Com*

*Alpha Technologies*

*Cherokee International*

*GE Medical Systems*

*American Radionics*

*Silicon Graphics*

*IBM*

*Avex*

*Magnetek*

*Tellabs*

*Xerox*

*Xantrex*

*Marconi*

*Alacrity*

*Compaq*

*CSS Power*

*GoldStar*

*Rockwell Automation*

*Sun Microsystems*

*Ascom Energy Systems*

*US Technologies*

*Emerson Network Power*

*AT&T Power Systems*



# Power Supply Test Systems

***FineTest Power Supply Test Systems  
are used for many diverse applications  
including the following:***

***Automation Controllers***

***Mainframe Computers***

***Telecom Power Cabinets and Modules***

***Telecom High Volume Production***

***Telecom High Power Systems***

***Environmental Stress Screening (ESS)***

***Lap-Top Computer Power***

***Power Supply Repair***

***Photocopier Power***

***Design Verification Test***

***OEM Volume Production***

# Power Supply Testers for Automation Power *Brazil, Mexico*

POWER SUPPLY TEST SYSTEMS



*System #1 Acceptance Test and Training*

**Application:** AC/DC and DC/DC Power Supplies  
High Volume Production Testing

**Features:** Built-In Thermal Chamber  
Direct replacement Hardware & Software for HPE3650A/B PS Test System  
FineSoft on MicroSoft C# , NI LabWindows/CVI & TestStand platforms

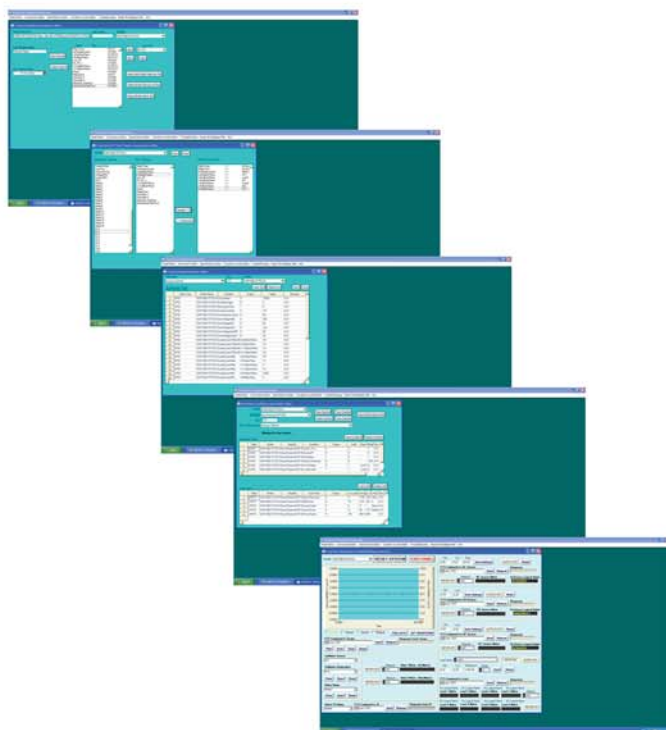




*Installing a UUT into the Test Fixture*



*Test Fixture with UUT in Chamber*



*FineTest Program Generator Software  
reads all existing HPPTS DataBase Files  
for direct software replcement of  
HPE3650A Power Supply Test System*



*Using Interactive Control Panel*

# Power Supply Testers for Mainframe Computers

POWER SUPPLY TEST SYSTEMS



*Multiple duplicate Testers on the production floor*

**Application:** 3kW DC/DC Converters  
High Volume Production

**Features:** PCB Test Fixtures  
EEPROM programming  
Dual RS485 communications  
FineSoft on LabWindows CVI platform



*Duplicate Tester with third cabinet to mount computer in the tester*



# Power Supply Testers for Mainframe Computers



POWER SUPPLY TEST SYSTEMS

*Front view of multiple systems on the production floor*

**Application:** AC/DC Front End for Mainframe Computers  
5kW 3 Phase AC/DC Bulk Power Regulators  
High volume production environment

**Features:** PCB production test fixture and cart  
FineSoft on LabWindows CVI platform  
RS485 communication for EEPROM programming  
3 Phase, 10kW/phase, motor driven transformer  
Combined resistive and electronic loads  
Voltech PM3000A 3 Phase Power Meter

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# Power Supply Tester for Mainframe Computers

POWER SUPPLY TEST SYSTEMS



*Test Program Development on Tester*

**Application:** AC/DC Power Supplies  
Engineering Characterization Test

**Features:** Engineering Quick Connect front panel interface  
FineSoft on HP Basic platform  
FineTest PAD Command



# Power Supply Tester for Mainframe Computers



POWER SUPPLY TEST SYSTEMS

*Front view of BPR Tester with Test Fixture and UUT on the production floor*

**Application:** AC/DC Front End for Mainframe Computers  
5kW 3 Phase AC/DC Bulk Power Regulators  
High volume production test

**Features:** PCB production test fixture and cart  
FineSoft on LabWindows CVI platform  
RS485 communication for EEPROM programming  
3 Phase, 10kW per phase, motor driven transformer  
Combined resistive and electronic loads  
Voltech PM3000A 3 Phase Power Meter

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# Power Supply Tester for Mainframe Computers

POWER SUPPLY TEST SYSTEMS



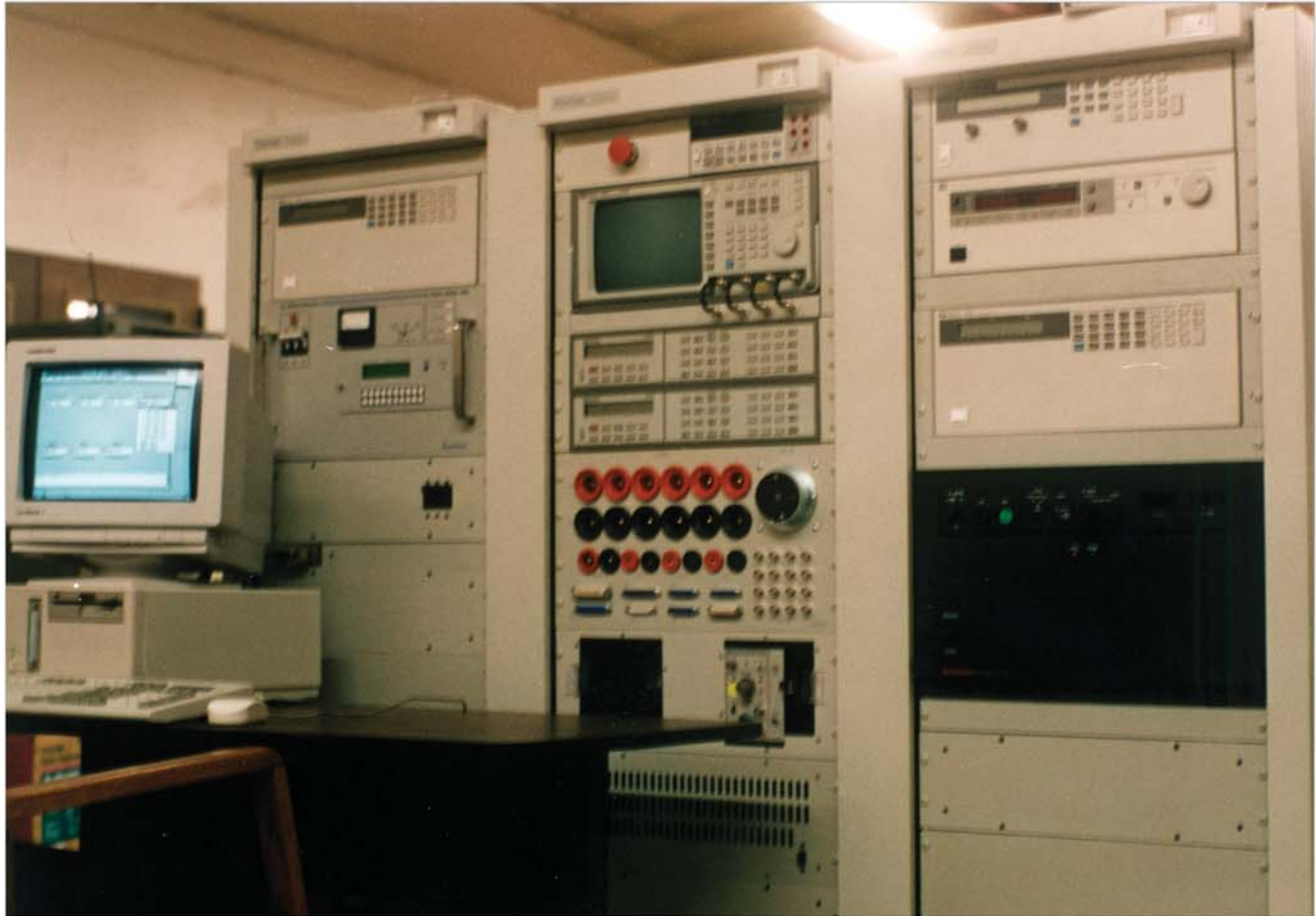
*Front view of Tester*

**Application:** High Power AC/DC and DC/DC Power Supplies  
Engineering Characterization Test

**Features:** Engineering Quick Connect front panel interface  
FineSoft on LabWindows CVI platform  
3 Phase Electronic AC Source, 4.5 kVA per phase



# Power Supply Tester for Mainframe Computers



POWER SUPPLY TEST SYSTEMS

*Front view of Tester*

**Application:** Engineering Prototype Characterization  
Product Validation and Vendor Qualification  
Production Test

**Features:** Quick Connect front panel interface  
Tektronix Current Probe at front panel  
High power Sorensen DC power supply  
FineSoft on LabWindows CVI

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# Power Supply Testers for Telecom Power

Canada/China

POWER SUPPLY TEST SYSTEMS



*Front view of System #4*

**Application:** AC-DC and DC-DC Power Supplies  
High Volume Production Testing

**Features:** FineSoft on NI LabVIEW Platform  
Cabinet Fixture with multiple power shelves for UUTs  
Photo-Sensors to detect UUT LEDs





*Systems 3 and 4 Acceptance Test and Training*



*Fixture with Safety Door Closed*



*Fixture with added  
HV Loads and Scope*



*Installing a UUT*

# Power Supply Testers for Telecom Power

POWER SUPPLY TEST SYSTEMS



*Front view of duplicate Testers*

**Application:** 2.5kW Telecom AC/DC Power Supplies  
High Volume Production

**Features:** Motor driven transformer  
dBRnC Meter  
FineSoft on LabWindows CVI platform



# Power Supply Testers for High Volume Telecom Power



POWER SUPPLY TEST SYSTEMS

*Multiple Testers on contract manufacturing high volume production floor*

**Application:** AC/DC and DC/DC Power Supplies  
Sub-Assemblies and Board Test  
High Volume Production

**Features:** Interchangeable Test Fixtures  
FineSoft on LabWindows CVI platform

 **FineTest**  
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# Power Supply Testers for High Volume Telecom Power

POWER SUPPLY TEST SYSTEMS



*Front view of multiple systems on the production floor*

**Application:** Telecom AC/DC and DC/DC Power Supplies  
High Volume Production

**Features:** Virginia Panel front panel interfaces  
FineSoft on a LabWindows/CVI platform





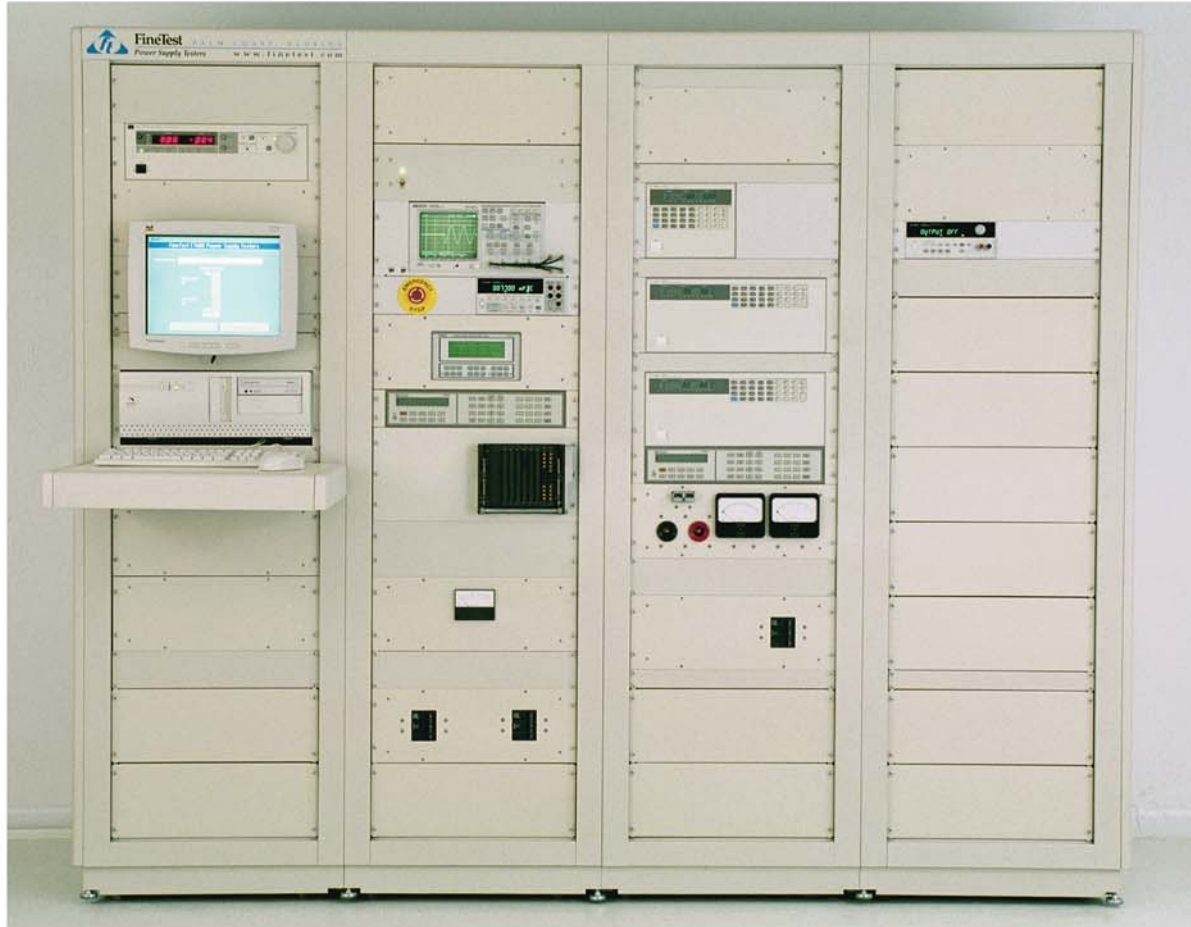
*Front view of multiple systems on the production floor*



*Close-Up view of the systems on the production floor*

# Power Supply Tester for Telecom High Power

POWER SUPPLY TEST SYSTEMS



*Front view of V200 Tester*

**Application:** Telecom 48V, 200A 10kW AC/DC Power Supplies  
High Volume Production

**Features:** RS485 Communications  
EEPROM programming  
Reduced system cost and test time by using:  
Motor Driven Transformer  
Combined resistive and electronic loads  
FineSoft on LabWindows CVI platform





*Rear View of V200 Tester*



*Tester # 4 with Test Fixture and UUT*



*Tester # 4 on production floor*



*Duplicate Tester # 5*



*Tester # 3 with Test Fixture*



*Tester #3 in production*

# Dual Power Supply Tester for Telecom Power

Belgium

POWER SUPPLY TEST SYSTEMS



*Dual Tester with two UUTs installed in the Test Fixture*

**Application:** Telecom Power Supplies  
High volume production test

**Features:**

- i2c communications
- RS485 communications
- EEPROM programming
- FineSoft on Agilent VEE platform
- Reduced test time and cost by testing two units at once



*Front view of Dual Tester*





*Operator adjusting one UUT while the other UUT is testing*



*Two UUTs in a dual Test Fixture*

# Power Supply Testers for Telecom Power

*Belgium*

POWER SUPPLY TEST SYSTEMS



*Angled front view of Tester*

**Application:** Telecom Power Supplies  
High Volume Production

**Features:** FineSoft on Agilent VEE  
i2c communications  
RS485 communications  
EEPROM programming



*Front view of Tester*





*Multiple duplicate Testers on the production floor*



*Inserting a UUT into Test Fixture*



*Units to be tested*

# Power Supply Tester for Telecom Power

POWER SUPPLY TEST SYSTEMS



*Front view of Tester*

**Application:** Power Supply High Volume Production

**Features:** Final and Sub-Assembly Functional Test  
FineSoft on LabWindows CVI platform



# Power Supply Tester for Telecom Power

*Ireland*



POWER SUPPLY TEST SYSTEMS

*Front view of Tester during Acceptance Test and Training*

**Application:** Telecom AC/DC Power Supplies  
Telecom Power Cabinet Test  
High Volume Production

**Features:** RS485 communications  
EEPROM programming  
FineSoft on LabWindows CVI platform

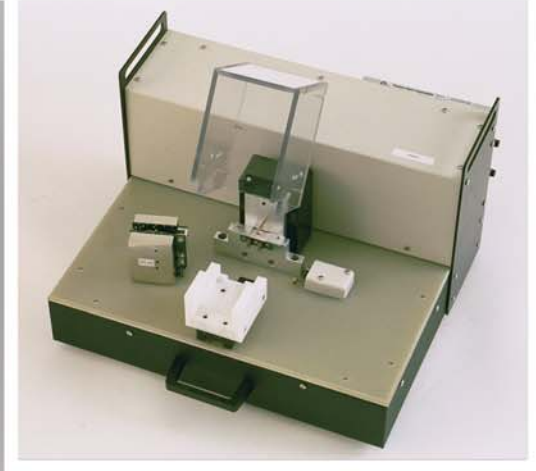
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# Power Supply Testers for Telecom Power

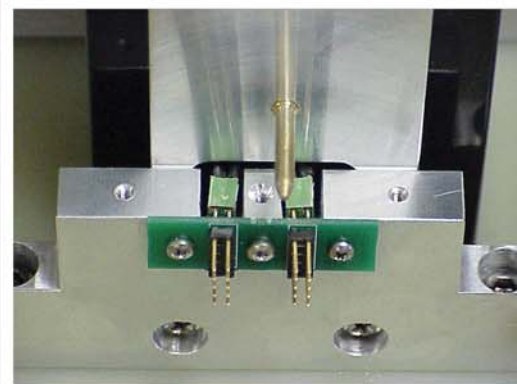
POWER SUPPLY TEST SYSTEMS



*Front view of Tester #1*



*Test Fixture with UUT*



*Close-Up of Test Fixture  
Mating Connectors and Guide Pin*

**Application:** Telecom DC/DC Power Supplies  
High Volume Production

**Features:** Sliding Plug-In Test Fixture  
FineSoft on Agilent VEE platform



*Front View of Tester #2*



# Power Supply Tester for Telecom Power



*Acceptance Test and Training*



*Close-Up Test Fixture with UUT*



*Tester with Test Fixture and UUT*

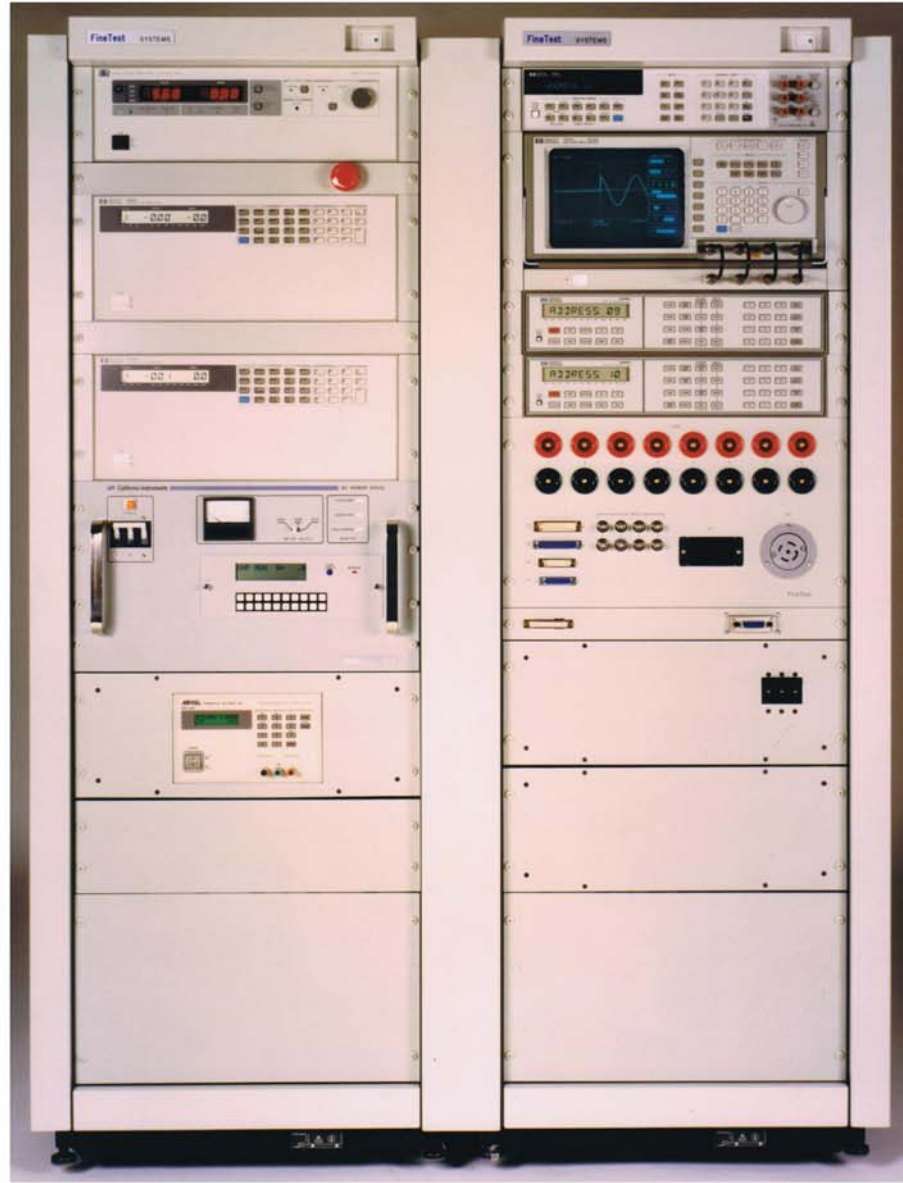
POWER SUPPLY TEST SYSTEMS

**Application:** Final and Sub-Assembly Test  
High Volume Production Test

**Features:** DC/DC Power Supplies  
FineSoft on NI LabWindows/CVI

# Power Supply Tester for Telecom Power

POWER SUPPLY TEST SYSTEMS



*Front view of Tester*

**Application:** Telecom AC/DC and DC/DC Power Supplies  
Engineering Prototype Characterization  
High Volume Production

**Features:** Engineering Quick Connect Front Panel Interface  
FineSoft on LabWindows CVI platform  
8 ½ Digit Multimeter



# Power Supply Tester for Telecom Power

*Israel*

POWER SUPPLY TEST SYSTEMS



*Tester on the Production Floor*



*Hot-Swap Redundant Test Fixture*

**Application:** Telecom Power Supplies  
High Volume Production Test

**Features:** FineSoft on NI LabWindows  
Test Fixtures for  
Redundant Hot-Swap Test



*Testing a UUT 2nd Hot-Swap Fixture*

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# Environmental Stress Screening Tester and Burn-In for Telecom Power

POWER SUPPLY TEST SYSTEMS



*Front view of Tester showing 20 Burn-In Loads, Power Switching Units, VXI Switching*

## Application:

Telecom AC/DC and DC/DC Power Supplies  
Functional Test and Burn-In of 20 Power Supplies  
Thermal chamber for accelerated temperature stress screening  
Instrumental in customer winning Deming Award 1994

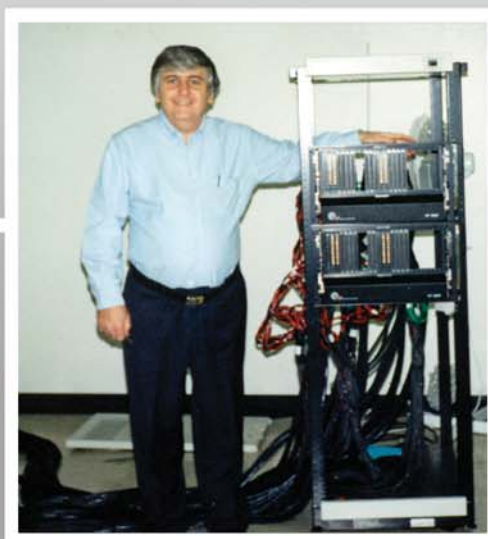
## Features:

Dual 25 Module VP front panel interface inside thermal chamber  
C size VXI mainframe for switching  
20 plug in resistor load slots can accept different burn-in loads  
Switches AC or DC Power to the 20 UUTs  
Facility supplied AC, DC supplied by 20 DC Power Supplies  
FineSoft on LabWindows CVI platform

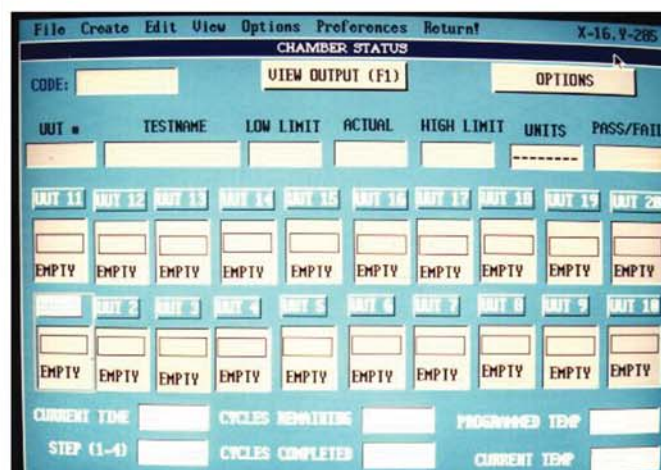




*20 DC Power Supplies and  
fused AC Power Switching Units*



*Close-Up of dual 25 Module interface  
located inside the thermal chamber*



*FineTest Software to both functionally test  
and monitor burn-in of the 20 UUTs*

## How it works:

The system functionally tests one supply, while the other 19 supplies burn-in at full load.

After the first supply has finished its functional test, it is connected to its burn-in load.

The tester then switches to the next supply for functional testing.

The functional test cycles through all of the 20 supplies.

The Thermal Chamber moves the temperature and the test/burn-in cycle begins again.

The entire test time is 48 hours.

# Power Supply Tester for Telecom Power

POWER SUPPLY TEST SYSTEMS



Front view of Tester



Close-Up of Hypertronics interface

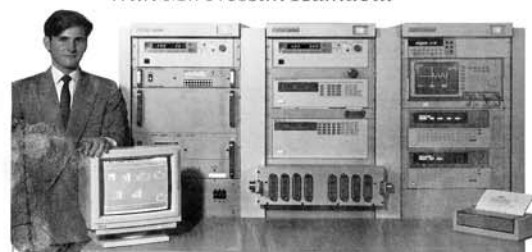
**Application:** AC/DC and DC/DC Power Supplies

**Features:** Hypertronics front panel interface  
B size VXI mainframes for switching  
FineSoft on LabWindows CVI platform

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## FineTest Power Supply Testers

*...The Next Generation  
With Mr. Nessim Hamaoui*



**Q. How does this generation of testers differ**

### **in Hardware?**

A. Instead of using black boxes for the tests and proving the results with external lab instruments, we use the lab instruments in the tester. This is done at a very competitive price.

### **in Software?**

A. The FineSoft package consisting of Instrument Drivers, Power Supply Tests and Statistics is offered on many platforms: HP Basic, HP VEE, Quick, Basic, LabWindows and LabVIEW. The option of one or several platforms in the same tester is a new flexibility.

### **in Maintenance?**

A. Using Lab Quality Instruments such as HP's, our users benefit from high reliability and good documentation. This is enhanced by FineTest, which replaces a faulty unit while it is repaired by its original manufacturer.

Nessim implemented FineSoft on the LabWindows and LabVIEW Platforms.  
For more information on our many interfaces and configurations contact:

**FineTest** 1289 Hammerwood Ave., Sunnyvale, CA 94089  
Tel (408) 747-1792 Fax (408) 252-5763

See us at Wescon '92 in Anaheim, Booth 2559  
CIRCLE 25 ON READER SERVICE CARD

EE Magazine Ad 1992



# Power Supply Testers for Telecom Power



*Tester and Test Fixture integrated with production line*



*Testers on the production line*

POWER SUPPLY TEST SYSTEMS



*Close-Up Tester #1*



*Close-Up Tester #2*



*Close-Up Tester #3*

**Application:** 2.5kW Telecom AC/DC Power Supplies  
High Volume Production

**Features:** FineSoft on LabWindows CVI platform  
Combined resistive and electronic loads  
Motor driven transformer  
dBRnC Meter

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# Power Supply Tester for Telecom Power

Mexico

POWER SUPPLY TEST SYSTEMS



Front view of Tester



Test Fixture with UUT



Close-Up of Test Fixture

**Application:** High Efficiency AC/DC Power Supplies  
High Volume Production

**Features:** Pogo-Pin Test Fixture  
FineSoft on Agilent VEE platform



# Power Supply Tester for Telecom Power *Switzerland*



POWER SUPPLY TEST SYSTEMS

*Front view of Tester*

**Application:** Telecom AC/DC and DC/DC Power Supplies

**Features:**

- Custom connector front panel interface
- B size VXI mainframe for switching
- FineSoft on LabWindows CVI platform

# Power Supply Tester for Telecom Power

POWER SUPPLY TEST SYSTEMS



*Front view of 3kW Tester*

**Application:** Telecom 3kW AC/DC Power Supplies  
High volume production test

**Features:** FineSoft on LabWindows CVI platform  
i2c Communication for EEPROM programming  
Reduced system cost and test time by using:  
Fixed multi-tap transformer for input voltage  
Combined resistive and electronic loads



# Power Supply Testers for Telecom and Military Power



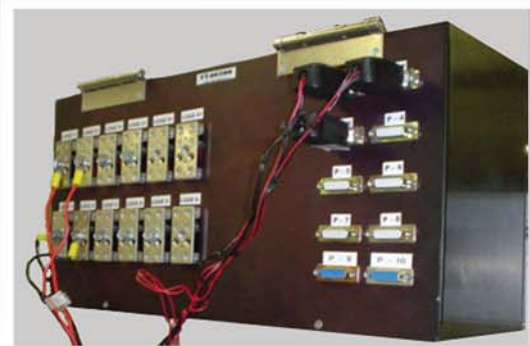
*Duplicate Tester with cart full of UUTs*



*Operator testing a UUT*



*Power Module Test Fixture*



*Quick Connect Test Fixture*



*Tester #3 with Test Fixture*

POWER SUPPLY TEST SYSTEMS

**Application:** AC/DC and DC/DC Power Supplies  
Telecom and Military Supplies  
High Volume Production

**Features:** FineSoft on LabWindows CVI  
Quick Connect Test Fixture

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# Power Supply Tester for Telecom Power

Brazil

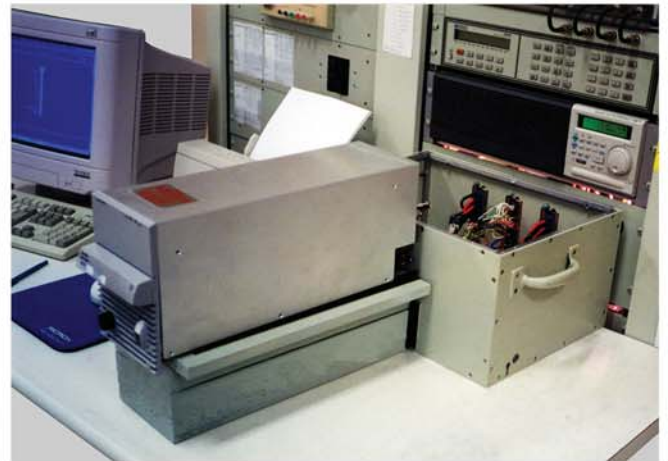
POWER SUPPLY TEST SYSTEMS



*Front view of Tester and Test Fixture*

**Application:** Telecom Power Supplies  
High Volume Production

**Features:** Motor Driven Transformer  
Kikusui Electronic Load  
Hypertronics front panel interface  
FineSoft on LabWindows CVI platform



*UUT installed in the Test Fixture*



# Power Supply Tester for Telecom Power

China



POWER SUPPLY TEST SYSTEMS

*Front view of Tester on the production floor*

**Application:** Telecom AC/DC Power Supplies  
Telecom Power Cabinet Test  
High Volume Production

**Features:** RS485 communications  
EEPROM programming  
FineSoft on LabWindows CVI platform

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# Power Supply Tester for Telecom Power

POWER SUPPLY TEST SYSTEMS



*Front view of Tester*

**Application:** Telecom AC/DC and DC/DC Power Supplies  
Engineering Prototype Characterization  
Vendor Qualification  
Incoming Inspection

**Features:** Hypertronics front panel interface  
FineSoft on LabWindows CVI platform



# Power Supply Tester for Telecom Power



*Tester on Production Floor*



*FineSoft Software  
with all  
Test Information  
on one  
Graphical User Interface (GUI)*

**POWER SUPPLY TEST SYSTEMS**

**Application:** Final and Sub-Assembly Test  
High Volume Production Test

**Features:** AC/DC and DC/DC Power Supplies  
Integration of Lorain Switching Mainframe and Cards  
FineSoft on LabWindows

# Power Supply Tester for Telecom Power

France

POWER SUPPLY TEST SYSTEMS



*Front view of Tester at Nepcon Show, Boston 1990*

**Application:** Telecom AC/DC Power Supplies

**Features:** Quick Connect front panel interface  
FineSoft on HP Basic platform



*Front view of Tester*



# Power Supply Tester for Telecom Power DVT

POWER SUPPLY TEST SYSTEMS



*Front view of Tester with UUT and Thermal Chamber*

**Application:** Telecom AC/DC Power Supplies  
Design Verification Test (DVT)

**Features:** Integrated Thermal Chamber  
FineSoft on LabWindows CVI



*Full view of Tester*

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# Power Supply Tester for Telecom Power

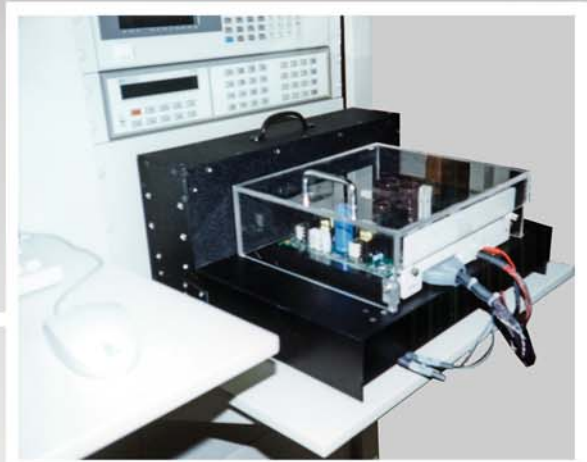
POWER SUPPLY TEST SYSTEMS



*Front view of Tester with Test Fixture and UUT*



*Close-up front view of Test Fixture with safety cover open*



*Close-up side view of Test Fixture*

**Application:** DC/DC Telecom Power Supplies  
High volume production environment

**Features:** Virginia Panel front panel interface  
FineSoft on LabWindows CVI platform  
RS485 for EEPROM programming



# Power Supply Tester for Telecom Power



*Front view of Fat-1 Tester*



*Quick Connect front panel interface*



*Quick Connect Test Cable*

POWER SUPPLY TEST SYSTEMS

**Application:** Telecom AC/DC Power Supplies  
First Functional Acceptance Test (FAT-1)

**Features:** Quick connect cable front panel interface  
FineSoft on LabWindows CVI platform

# Power Supply Tester for Laptop Computer Power

POWER SUPPLY TEST SYSTEMS



*Front view of Tester*

**Application:** AC/DC Laptop Computer Power Supplies  
High Volume Production

**Features:** Hypertronics front panel interface  
All equipment in a single cabinet



# Power Supply Tester for Power Supply Repair



POWER SUPPLY TEST SYSTEMS

*System at joint US Technologies/FineTest Booth at Nepcon*

**Application:** Commercial and Military Power Supply Repair  
Re-Design and End Of Life Manufacturing Test Service

**Features:** Full Functional Test of Repaired Power Supplies  
Easy configuration for different models  
FineSoft on NI LabWindows Platform

 **FineTest**  
[www.finetest.com](http://www.finetest.com)

# Power Supply Tester for OEM Power

*South Korea*

POWER SUPPLY TEST SYSTEMS



*Front view of Tester during Acceptance Test and Training*

**Application:** AC/DC and DC/DC Power Supplies  
Engineering Characterization and Test  
High Volume Production

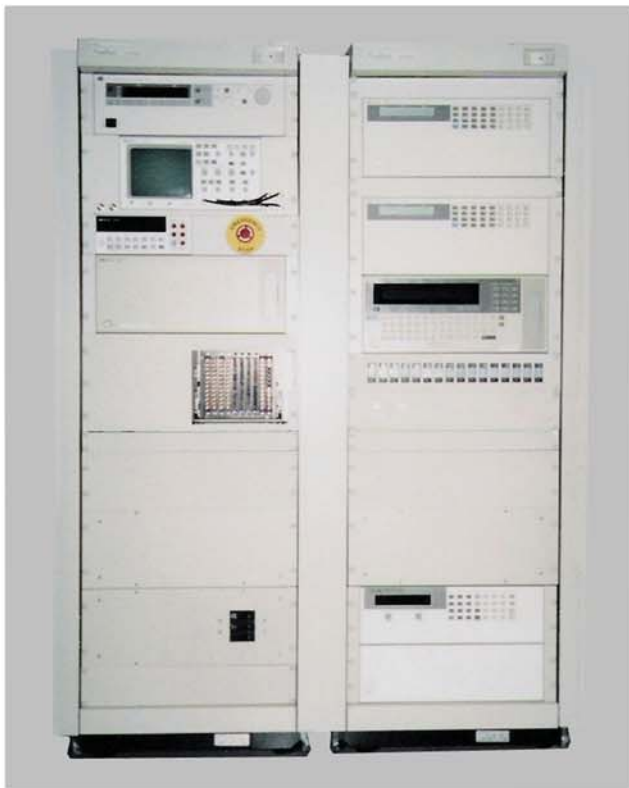
**Features:** Engineering Quick Connect front panel interface  
FineSoft on LabWindows DOS platform



# Power Supply Tester for Photocopier Power *Holland*



*Close-Up front view of Tester*



*Front view of Tester*

POWER SUPPLY TEST SYSTEMS

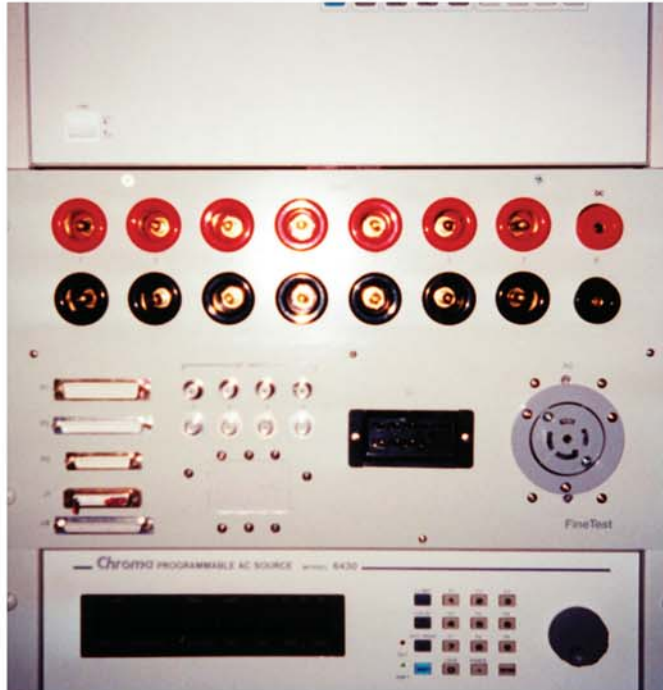
**Application:** AC/DC and DC/DC Power Supplies  
High Volume Production

**Features:** FineSoft on Agilent VEE platform  
Thermocouple Interface Panel  
B Size VXI Mainframe for switching

# Power Supply Tester for OEM Power

Mexico

POWER SUPPLY TEST SYSTEMS



*Close-Up Quick Connect front panel interface  
and Chroma Electronic AC Source*

**Application:** AC/DC Power Supplies  
DC/DC Power Supplies  
High Volume Production

**Features:** Quick Connect front panel interface  
Chroma Electronic AC Source  
FineSoft on LabWindows CVI

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*Front view of Tester*



# Power Supply Tester for OEM Power



POWER SUPPLY TEST SYSTEMS

*Front view of Tester*

**Application:** Off-The-Shelf Power Supplies  
GPIB Test  
Production Test

**Features:** FineSoft on LabWindows CVI  
Kikusui Electronic Load

# Power Supply Tester for OEM Power Supplies

POWER SUPPLY TEST SYSTEMS



*Front view of Tester*

**Application:** Off-The-Shelf Power Supplies  
Custom configured power systems  
Production Test

**Features:** FineSoft on LabWindows CVI  
Engineering Quick Connect Front Panel Interface  
Behlman AC Source



# Power Supply Tester for Telecom Power



POWER SUPPLY TEST SYSTEMS

*Front view of system on the production floor*



*Close-Up view of Quick Connect to  
Production Interface Adapter  
with a Test Fixture and UUT*

**Application:** Telecom AC/DC and DC/DC Power Supplies  
High Volume Production

**Features:** Quick Connect to Production Interface Adapter  
FineSoft on LabWindows CVI platform  
8 ½ Digit Multimeter

 **FineTest**  
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FineTest Production Floor

FineTest Building at 1 Industry Drive



# FineTest

[www.finetest.com](http://www.finetest.com)



Solutions Partner

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