



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

## Procyon DC/DC Test Systems

POWERFUL, EASY-TO-USE AUTOMATED TEST SYSTEMS

**INTEPRO**  
SYSTEMS

THE POWER TEST EXPERTS

## KEY FEATURES

- R&D and production ATE's
- Power from 1W to over 1MW
- Single and multi-channel
- Scalable solutions
- Regenerative technology
- Auto-ranging DC sources
- Open-architecture hardware supporting LXI, IEEE, VXI, PXI and AXI
- High speed data acquisition
- Powerful open frame test executive software

## Overview

Intepro Systems is the choice of power conversion users and manufacturers around the world to meet their design, manufacturing and quality control needs. Our knowledge and expertise in power supplies, distributed power systems, regenerative power, and power components make our systems unparalleled for production testing, accelerated life testing, environmental stress screening, repair and characterization.

Applications include: Production functional testing of power supplies, DC/DC converters, and point of load devices from 1W to over 1MW.

Intepro systems are also used in the repair and design characterization of these units as well as in a wide range of associated power electronics.

Key to the Intepro systems is an open architecture for hardware and software that permits complete flexibility to configure and integrate any third-party instrumentation with a wide range of Intepro and customer hardware. This flexibility provides built-in obsolescence management allowing hardware to be swapped without the need to make any changes to existing software and test programs, thus preserving your investment.

## System Architecture

Intepro's Procyon test systems are built around industry-standard open architecture hardware platforms that enable integration of commercial off-the-shelf (COTS) instrumentation. This design approach reduces lead time of brand specific equipment requirements which results in cost reduction compared with custom engineering designs.

Utilizing the latest technologies sets us apart from most automated test equipment (ATE) suppliers. Programmable DC power supplies are an essential tool of any ATE. In many instances, the proper testing requires submitting the device-under-test (DUT) to a wide range of operating conditions. Autoranging power supplies are capable of replacing multiple supplies and

reducing rack space requirements.

Another essential tool is the ability to load the unit under test (UUT). The Procyon 2100-10 series offer linear, modular and regenerative load technology. Regenerative technologies drive cost savings compared to traditional electronic loads that dissipate loaded energy in the form of heat.

The Procyon 2100-10 is a configurable turnkey test solution, delivering comprehensive test coverage and high productivity to some of the world's largest-volume manufacturers as well as the affordability needed by niche market producers. The table below lists a selection of the standard tests available for selection within the software.

### **STANDARD LIBRARY TESTS INCLUDE:**

#### **OUTPUT PERFORMANCE**

- DC Output Voltage
- Ripple and Noise
- Efficiency
- Overshoot Voltage
- Voltage Dropouts
- Dynamic

#### **INPUT CHARACTERISTICS**

- Frequency Range
- Power Analyzer Data
- High Line/Low Line
- Line disturbance
- Safety

#### **REGULATION TEST**

- Cross Regulation
- Load Regulation
- Line Regulation

#### **RESPONSE AND TIMING**

- Transient Response Time
- Spikes and Drops
- Line Transient

#### **PROTECTION TEST**

- Short Circuit
- OC, OV and OP Protection
- Remote Shutdown Protection

#### **SPECIAL TEST**

- Communication
- Status Signals

## Typical Procyon 2100-10 Test System



## Mass Hardware Interface

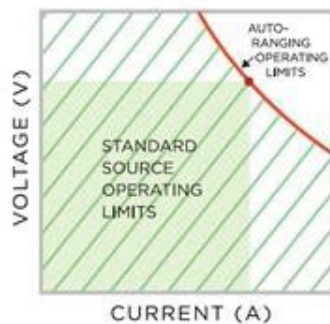
Procyon test systems can be fitted with industry-standard Virginia Panel, Mac Panel or Hypertronics receivers and interface test adapters (ITAs). Custom interfaces are also available to maintain compatibility with your existing test fixtures.

The mass interface fixture (MIF) acts as the connector interface between test instruments and units under test. The fixtures are flexible, reconfigurable and modular.

Test points are routed via the MIF to high speed multiplexers allowing connection to a range of measurement instruments for fast and precise measurements.

### DC SOURCES

Intepro's Auto-Ranging programmable DC products provide higher output current at reduced voltages. This feature offers a wider power curve than traditional rectangular output characteristic power supplies because they expand the output power curve into a more usable power envelope. This gives the user more voltage and current combinations in one.

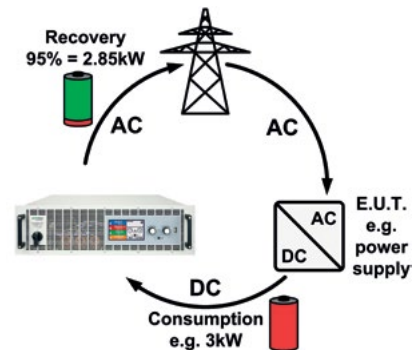


PS and PS Series 1-15kW

### DC LOADS

Traditional air and water cooled loads are available but Intepro also offers energy saving regenerative loads. Intepro's line of regenerative products offers all of the necessary features of today's electronic loads plus the added benefit of energy recovery to mains.

Regenerative technology converts the supplied energy into a synchronous sine current and feeds it back into the local or public grid. This eliminates the usual load heat dissipation and saves energy costs at the same time.



When used for burn-in and life characterization applications, Intepro's ELR Series "Green Loads" recycle more than 93% of the power drawn from the AC mains or DC input. These energy recycling loads can be a key part of your smart factories.



ELR-5000



ELR-9000

## PowerStar Test Executive

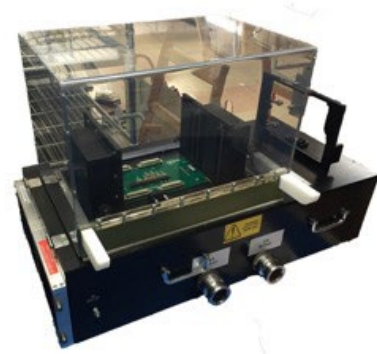


With a true open architecture structure, PowerStar facilitates the engineers' job of quickly developing comprehensive test programs. PowerStar's unique "Programming without Coding"™ capability allows engineers to create sophisticated test programs that are as complex as C-coding by simply selecting from

hundreds of standard test routines, limit checks, data logging or data exporting functions. For those who want to write C-code, they can write their own test libraries or instrument drivers with the optional VBA (Visual Basic for Applications) or Visual Studio integrated packages.

## Test Fixtures

For those customers who need a complete turnkey test platform, Intepro Systems can provide fully integrated test fixtures and programs with your test systems. These fixtures can be integrated with your automation systems and designed to be safely operated by your operators.



## Self-Test Fixtures

A self-test facility is available to carry out an automatic functional check on the test system hardware. The system leverages internal hardware to test functional operation of the system.

## Calibration Fixture

Intepro provides breakout fixtures to simplify the calibration of the test station.



## Safety

The systems contain interlocks and optional real-time safety shutdown modules that cut off power to the unit under test when critical programmable thresholds are exceeded.

All power inputs have safety breakers on the rear of the cabinet as well as an EPO mushroom button on the front of the station that will power down the entire station within a few milliseconds.

In addition to the power on/off, all instruments are routed through a common interface panel. These connections are also safety interlocked. No source power is available on the front panel pins whenever the fixture harness has been removed.

## Project Management

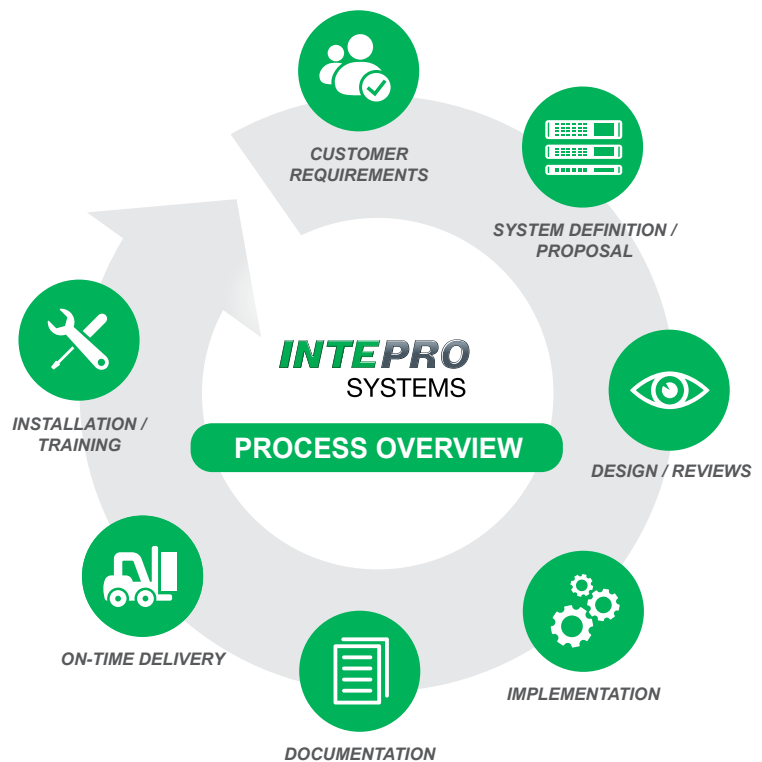
Intepro Systems follow a structured approach in specifying and implementing test systems for its customers. Projects are coordinated by a dedicated project engineer who liaises directly with you during all phases of the project.

### **CUSTOMER REQUIREMENTS**

- Our knowledgeable team works with you to determine requirements.

### **SYSTEM DEFINITION/PROPOSAL**

- Once a concept has been defined Intepro proposes a detailed solution.



### **DESIGN/REVIEWS**

- The solution is designed and regular customer reviews are held to ensure alignment with customer requirements.

### **IMPLEMENTATION**

- Our team of experts assemble the systems to meet the design agreed with our customers during the design stage

### **DOCUMENTATION**

- Complete documentation package that includes user and service manuals, schematics, wire tap table and parts list cost savings.

### **ON-TIME DELIVERY**

- Meeting commitments is an important milestone in any project. We deliver on time and on budget.

### **INSTALLATION/TRAINING**

- Worldwide on-site installation, system verification and user training accelerates initial start up.

### **POST-COMPLETION**

- On-site service
- Procyon calibration fixtures and Calstar calibration software allows for on-site calibration reducing down time of the ATE
- Prompt response to customer support
- Remote diagnostics

- Post-design engineering services

- Extended maintenance contracts available to minimize long term cost of ownership

### **TRAINING**

- Introductory training covering system hardware, software setup and maintenance to full comprehensive training including how to create and modify test programs.

### **CONTINUOUS PATH TO UPGRADES MEANS A LONG ATE LIFE**

Hardware Independence, swap in new equipment without changing routines

Hardware independence means programs have an upgrade path. This architecture remains in place for when today's hardware becomes obsolete in the future, new models, new brands are easily incorporated into the ATE tester.

- You are in control of your hardware and software
- End-User can change model or brands to keep system current
- Hardware independence streamlines the replacement of obsolete hardware



## The Intepro Advantage

Intepro's knowledgeable team can recommend the brands that fit in best with your testing requirements, or include those specific brands you prefer. While Intepro has partnerships with test and measurement manufacturers to tailor the systems to your needs, we also have our in-house Power supplies, Electronic loads and AC sources that offer excellent performance at significant cost savings.

These instruments utilize the latest technologies. Our DC power supplies are auto-ranging to provide compact efficient power to potentially reduce the number of power supplies needed for your testing. Our regenerative loads not only minimize heat dissipation from the system, but also recycle more than 90% of the load energy.

### **ON TIME, ON BUDGET**

Is on the top of the list for any company, Intepro doesn't full stop after there. We factor in throughput, quality control, down time, servicing and expandability. This is why our systems are class leaders reducing cost of ownership while performing at a high level for many years of operation. Let your resources focus on what they do best, let us solve the problem of design and building your ATE tester on time, and on budget.

### **OUR SYSTEMS**

Our configurable test platforms include:

- **PST2100-10**  
DC/DC Power Supply Test Systems
- **PST2100-20**  
Battery Test Systems
- **PTS2100-30**  
Electric Vehicle Test Systems
- **PTS2100-40**  
Energy Conversion Test Systems
- **PTS2100-50**  
Life Cycle Test Stations / Burn In
- **PTS2100-60**  
Power Semiconductor Test Systems
- **PTS2100-70**  
DC/AC Power Supply Test System
- **PTS2100-80**  
AC/DC Power Supply Test System

## Global Support

Support offices on three continents for reaching around the world for worldwide onsite support. Our teams transition projects and manufacturing using our ATEs from one continent to another. We provide support from training to onsite maintenance and full services.

## Contact Us

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