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DEVICES TESTED

DISCRETE DEVICES
- Transistor
- Triac
- SCR
- OVP Solid State
- Diode
- Zener
- MOV
- STS/SBS
- IGBT
- Sidac
- Quadrac®
- JFET
- MOSFET
- Diac
- Opto-Coupler

ARRAYS / LOGIC
- Multiple Devices
- Mixed Devices
- Opto-Logic
- Opto-Switch
- Opto-Triac

PROGRAMMABLE OVERVOLTAGE PROTECTORS
- Programmable OVP
- Gated Devices / SLIC Protector
- 5 Pin Module

IC'S / HYBRIDS / RELAYS
- Regulator
- Power Hybrids
- Custom Devices
- Relay (1-4 Pole) A, B, C Form

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## TABLE OF TESTS

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<td>GATED DEVICE</td>
<td>ADP-340-5G</td>
<td>Ir, Ig, IgKS, ID</td>
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<td>IGT, VGT</td>
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<td>IH</td>
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</table>

* Not available with 5000E

NOTE: Parameters that require two tests, such as GFS, are calculations.
THROUGHPUT
A six test step MOSFET test program (VGSTH, BVDSS, RDSON, 2 VGSON and GFS calculation) takes approximately 96 milliseconds to run and provides a throughput of up to 37,440 devices per hour.

5000E & 5300HX FEATURES
- Proven Technology
- High Speed Datalog
- 1 KHZ Zener Impedance
- 2NA to 50 Standard, 100A Optional
- 500A / 1000A / 1200A (available only on 5300HX)
- 1KV Standard, 2KV Optional
- 0.1NA Resolution
- RDSON to .01mΩ Resolution
- 96 Tests
- 99 Sorts
- Branching
- Optional Handler Interface
- Optional Prober Interface
- Programmable Relay Drivers
- Auto Calibration
- Self Test
- Data Management
Optional tests can be created for connection to external test equipment

TEST METHODS
The 5000E and 5300HX systems incorporate single test measure techniques to assure a measured value with only one application of stimulus, including tests such as hFE. This minimizes test time, minimizes internal device heating and maximizes throughput.

High resolution assures tests like RDSON to an accuracy of ± 0.5 milliohm at 1 A test current.
RANGE EXTENSIONS
available on 5300HX

EXTENDED HIGH CURRENT

- HC-500 (500A)
- HC-1000 (1000A)
- HC-1200 (1200A)

On-state current tests such as VT, VF, VCESAT, VDSON and RDSON can be extended to the limits indicated above by use of the High Current Deck (pictured).

EXTENDED LOW CURRENT

- LC-1000

Leakage test low end can be extended downward to measurements as low as 20pA with a 1pA resolution using the Low Current Deck (pictured). Low Current Deck is also shown connected to the tester for testing from the handler.
TEST PROGRAMMING

Creating and editing test programs for the STI 5000E and 5300HX are both easy and intuitive. Each test program contains a series of test steps (these steps can be actual device tests or calculations), bin/sort plan, and if required, relay plan. Test steps are added or edited with a single or double mouse click. A device test window or calculation window is opened. In the device test window the limit parameter value is entered along with, if applicable, other bias voltages or currents (one of the biases can be a calculation), load resistors, etc. In the calculation window the calculation limit is entered along with the name and units to be used in displaying the results and then the actual calculation which may reference any test result from a previously entered device test.

BINNING / SORTING

By default all programmed test steps are set to pass on SORT/BIN 1. Each test step may be set for pass, fail or do not care for each sort. Each sort may be set to any of the logical bins. Binning and sorting can be as simple as running all of the programmed test steps and then finding the first qualifying sort or as complex as branching on the first non-qualifying test to the next valid sort. In this more complex mode it is quite possible that only a subset of the programmed tests will be run on a given device and that all devices tested may not run the same subset of test steps.

EXTERNAL RELAYS

Four to fifteen (depending upon options supplied with the STI tester) relay drivers can be assigned to any programmed test step. These relay drivers can be used to provide external loads or connections for a given device test.
Datalogging is defined as capturing the actual test values for later use. The STI Testers use the USB port (or serial port) to send the test results to the PC for storage and use. Datalog can be selected individually per test. The entire test program can be set to Off (no Datalog), All (Datalog for all test steps selected), Every Nth (Datalog on every Nth device), Every Nth Sort 1 (Datalog on every Nth Sort 1), On Sort (Datalog each time the specified sort is found), or On Not Sort (Datalog each time the specified sort is not found).

The logged data may be stored to disk, displayed on the PC screen, sent directly to Excel® or any combination of the three. Data stored to disk can be used to create a columnar print file (data printed in columnar format), a statistics file (number, high, low, average and sigma), or converted into a file that can be imported into Excel.

Macros for use with Excel to produce statistics, histograms, columnar format, and other data analysis and formats are available.

Windows® and Excel® are registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.
The STI Tester provides extensive diagnostics for the Mainframe, Low Current Deck, Pin Programmable Scanner and OVP/Gated OVP adaptor. These self test diagnostics are built into the tester code, and with the supplied self test fixture, can be run at any time.

In addition, the STI Tester has an extensive auto calibration procedure that provides the user the ability to track calibration trends, verify that the DAC/ADC combination is functioning correctly, and supply calibration factors that will automatically correct the test result.
PIN PROGRAMMABLE SCANNER 30A/1200V

- ADP401A-8 (4x8 Matrix)
- ADP401A-16 (4x16 Matrix)

The Pin Programmable Scanner is used for testing multiple devices, mixed pin packages, opto-couplers, opto-logic, and other similar devices.

Any input (drive/sense) can be programmed to any of 8 or 16 output pins. A personality module contains a socket for a specified package type. The pins of the package can be connected to any of the input drives for a given test step.

Bias supplies can be added.
ADAPTORS continued...

**OVP / SIDAC / DIAC TEST Adaptor**

**ADP-360**

Single device adaptor for Solid State OVP (SSOVP), Sidac and Diac devices.

ADP-360 connected to tester with manual fixture

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**MULTIPLE OVP**

**ADP-340-5 Adaptor**

FOR: 5 Pin Modules (2 OVPs, 2 Heat Coils)

**ADP-340-5G Adaptor**

FOR: All ADP-340-5 Devices

Programmable OVP
Gated Devices (SLIC Protector)
Dual Programmable OVP
Dual Polarity OVP

ADP-340-5G with test fixture connected (Available on 5300HX only)
A selection of fixtures is available, including:

- TO-220/218
- TO-72
- TO-5/18
- TO-92
- TO-3/66
- Axial (small and large)
- DP-4/5
- 8 Pin DIP
- 6 Pin TO-5
- SOT-23, SOT-24, SOT-25, SOT-26
- D-PAK
- TO-252
- SOT-89
- TO-243
- D2-PAK
- SOT-223
- TO-261
- SMA
- SMB
- SMC
- MELF (MINI-MELF, MICRO-MELF)
- SO-4, SO-6, SO-8, SO-16
- SOD-123, SOD-323, SOD-80
- Custom Fixtures
  (made for any device type for which a socket is commercially available)
- Blank

A 16 bin handler interface and Logic Prober interface are available as options. Customer may specify handler and interface requirements. Bins or Sorts can be binary coded for use with wafer probers.
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<th>I RANGE</th>
<th>MAX RES.</th>
<th>ACCURACY</th>
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<tr>
<td>$I_R$, $I_{CBO}$, $I_{CEO/R/S/X}$, $I_{DSS/X}$, $I_{DOFF}$, $I_{DRM}$, $I_{RRM}$</td>
<td>.10V to 999V (2000V)$^1$</td>
<td>2NA (20PA)$^2$ to 50MA</td>
<td>1 NA (1PA)$^2$</td>
<td>1% + 2NA + 20PA/V$^8$ (1% + 200PA + 2PA/V)$^8$</td>
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<tr>
<td>$I_{EBO}$, $I_{GSSF}$, $I_{GSSR}$, $I_{GSS}$, $I_{GKO}$, $I_R$ (OPTO)</td>
<td>.10V to 20V (80V)$^3$</td>
<td>2NA (20PA)$^2$ to 3A</td>
<td>1 NA (1PA)$^2$</td>
<td>1% + 2NA + 20PA/V$^8$ (1% + 200PA + 2PA/V)$^8$</td>
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<tr>
<td><strong>BREAKDOWN</strong></td>
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<tr>
<td>$B_{VCEO}$, $B_{VCES}$ (IGBT) (300μS Pulse above 10mA)</td>
<td>.10V to 450V (900V)$^1$ to 700V (1400V)$^1$ to 800V (1600V)$^1$</td>
<td>100μA to 200MA to 100MA to 50MA</td>
<td>1 MV</td>
<td>1% + 100MV</td>
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<td>100NA to 50MA</td>
<td>1 MV</td>
<td>1% + 100MV</td>
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<td>$B_{VR}$, $B_{VZ}$</td>
<td>.10V to 5.00V to 9.999V to 50.00V to 700V (1400V)$^1$ to 999V (2000V)$^1$</td>
<td>10μA to 49.9A (500A)$^4$ to 25A (250A)$^4$ to 9.99A to 100 MA to 50MA to 400mA to 80mA</td>
<td>1 MV</td>
<td>0.4% + 2 LSB</td>
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<td>$B_{VCEO}$, $B_{VGSS}$, $B_{VGKO}$</td>
<td>.10V to 20V (80V)$^3$</td>
<td>100NA to 3A</td>
<td>1 MV</td>
<td>1% + 10MV</td>
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<td>$V_{CEOSUS}$, $V_{CERSEUS}$, $V_{CEVSUS}$</td>
<td>VCE: TO 1500V Inductive Kickback, 35mH choke</td>
<td>$I_C$: to 4A</td>
<td>0.5V</td>
<td>2% + 0.5V</td>
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<tr>
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<td>0.1V to 200V DC (measure 50μV to 300mV rms)</td>
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<td>0.001 Ω 1μV</td>
<td>1% + 1% Range</td>
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<td><strong>GAIN</strong></td>
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<tr>
<td>$h_{FE}$ (1 to 99,999) CTR (.01 to 99,999)</td>
<td>VCE: .10V to 5.00V$^6$ to 9.99V to 49.9V</td>
<td>$I_E$: 10μA to 49.9A (500A)$^6$ derate to 25A (250)$^6$ derate to 9.99A</td>
<td>.01 $h_{FE}$</td>
<td>VCE: 1% + 10MV $I_C$: 1% + 100NA $I_F$: 1% + 5NA</td>
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<td>$I_{F}$, $I_{B}$: 100NA to 10A</td>
<td>.001 CTR</td>
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$^1$ Range includes specified values.

$^2$ Maximum values for current and voltage ranges.

$^3$ Voltage range for specific parameters.

$^4$ Values at various current levels.

$^6$ Voltage range for specified parameter.

$^8$ Accuracy values for specified parameters.
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<thead>
<tr>
<th>PARAMETER</th>
<th>V RANGE</th>
<th>I RANGE</th>
<th>MAX RES.</th>
<th>ACCURACY</th>
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<td>VCESAT, VBESAT, VBEON, VF, VT</td>
<td>VCE, VD, VF, VT: .10V to 5.00V to 9.99V</td>
<td>IE, VT, IF: 10μA to 49.9A (500A) derate to 25A (250A)</td>
<td>1MV</td>
<td>V: 1% + 10MV</td>
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<tr>
<td></td>
<td>VGS, VGE, VBE, VF: .10V to 9.99V</td>
<td>IB, IF, IGT: 100NA to 10A (40A)</td>
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<td>IE, IF, ID, IT: 1% + 100NA</td>
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<td></td>
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<td>IB, IGT: 1% + 5NA</td>
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<td>ON STATE</td>
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<tr>
<td>VGSTH, VGESTH</td>
<td>.10V to 49.9V</td>
<td>ID: 100μA to 3A</td>
<td>1MV</td>
<td>1% + 10MV</td>
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<td>VO (Regulator)</td>
<td>VO: .10V to 20V (50V)</td>
<td>IO: 1MA to 5A</td>
<td>1MV</td>
<td>1% + 10MV</td>
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<td>VOIN: .10V to 49.9V</td>
<td>Load: Resistive or Electronic</td>
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<td>VIN: .10V to 20V (80V)</td>
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<td>VC</td>
<td>.10V to 49.9V</td>
<td>ID: 100NA to 10A</td>
<td>1MV</td>
<td>1% + 10MV</td>
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<tr>
<td>OFF</td>
<td>VGOFF</td>
<td>VD: .10V to 20V (80V)</td>
<td>ID: 100NA (20PA) to 3A</td>
<td>1MV</td>
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<td>VDS: .10V to 50V</td>
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<tr>
<td>TRIGGER</td>
<td>VGT</td>
<td>VD: 5V to 49.9V</td>
<td>IAK: to 3A</td>
<td>10NA</td>
</tr>
<tr>
<td></td>
<td>VGT</td>
<td>.10V to 20V (80V)</td>
<td>IGT: 100NA to 3A</td>
<td>1MV</td>
</tr>
<tr>
<td></td>
<td>VOPER (Relay)</td>
<td>.10V to 50V</td>
<td>RL: 12, 30, 100Ω, EXT</td>
<td>.10V</td>
</tr>
<tr>
<td>HOLD</td>
<td>IH</td>
<td>VD: 5V to 49.9V</td>
<td>IGT: 100NA to 3A</td>
<td>1μA</td>
</tr>
<tr>
<td></td>
<td>VRELEASE (Relay)</td>
<td>.10V to 50V</td>
<td>RL: 12, 30, 100Ω, EXT</td>
<td>.10V</td>
</tr>
<tr>
<td></td>
<td>(Initial IAK set by RL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LATCH</td>
<td>IL</td>
<td>VD: 5V to 49.9V</td>
<td>IL: 100μA to 3A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RL: 12, 30, 100Ω, EXT</td>
<td>IGT: 100NA to 3A</td>
<td></td>
</tr>
<tr>
<td>BREAKOVER</td>
<td>VBO, IBO (SSOVP)</td>
<td>VBO: 0.10 to 400V</td>
<td>IBO: 0.10 to 20V (80V)</td>
<td>10mA to 900mA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VBO: 0.10 to 20V (80V)</td>
<td>IBO: 0.10 to 400V</td>
<td>1mA to 1mA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VS, IS (SBS, STS)</td>
<td>IBO: 0.10 to 20V (80V)</td>
<td>1μA to 200μA</td>
</tr>
</tbody>
</table>

Accuracy specifications are in addition to ± 1 digit in readout.
## Gated Device Test Specifications

### Scientific Test, Inc. 5300HX Test Specifications Gated Devices

<table>
<thead>
<tr>
<th>Test</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parameter</strong></td>
<td><strong>V Range</strong></td>
</tr>
<tr>
<td>LEAKAGE</td>
<td>IG, IGKS, IGAS, ID, IR</td>
</tr>
<tr>
<td>ON STATE</td>
<td>VF, VT</td>
</tr>
<tr>
<td>TRIGGER</td>
<td>IGT, VGT</td>
</tr>
<tr>
<td>HOLD</td>
<td>IH</td>
</tr>
<tr>
<td>BREAKOVER</td>
<td>IBO, VBO</td>
</tr>
</tbody>
</table>

Accuracy specifications are in addition to ± 1 digit in readout.

1. 2000V Hi Voltage (Anode/Collector) Option
2. Lo Current Deck Option — Also adds programmable soak time from 1 mS to 99 secs. for current under 1μA. (Not available on 5000E)
3. 80V Lo Source (Gate/Base) Option
4. 500 Amp Hi Current Deck Option. (Not available on 5000E)
5. Voltage @ front panel terminals; allow for drop in cables
6. Optional 100V Hi Source
7. 40A Lo Source Option
8. Hi Deck or Adaptor: 1% + 2NA + 40PA/V
SELECTING A TESTER

QUESTIONS TO ASK

- Is programming easy? Will vendor give you software to evaluate?
- Are current and voltage ranges sufficient?
- Can current/voltage ranges be extended later?
- Are a wide selection of fixtures available?
- Is test/datalog speed adequate?
- Will vendor benchmark your samples for speed and correlation?
- Is the test method “single measure”?
- Does system include self-test with convenient troubleshooting guide?
- Is auto-calibrate included?
- Is vendor experienced? How many systems have they installed?
- Is tester limited to single device type/family? (latent cost)
- Is curve trace available?

WEIGHT AND DIMENSIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DIMENSIONS (mm)</th>
<th>WEIGHT (kg)</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL 5000 SERIES</td>
<td>[17” (432) x 20” (508) x 10.5” (267)]</td>
<td>55 lbs (25)</td>
<td>120/240 VAC (+5%, -15%) 50/60 Hz, Fused 2A/1A</td>
</tr>
<tr>
<td>Tester Mainframe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MODEL LC-1000 Lo Current Deck</td>
<td>[16.5” (419) x 10.5” (267) x 8” (203)]</td>
<td>11 lbs (5)</td>
<td>Powered from 5000 Series Tester</td>
</tr>
<tr>
<td>MODEL HC-500 Hi Current Deck</td>
<td>[17” (432) x 20” (508) x 10.5” (267)]</td>
<td>35 lbs (15.9)</td>
<td>Powered from 5000 Series Tester</td>
</tr>
</tbody>
</table>
### Product List: 5000 Series Systems

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5000C</td>
<td>Curve Tracer 2NA to 50A, 20v, 1Kv</td>
</tr>
<tr>
<td>5000E</td>
<td>Discrete Semiconductor Tester 2NA to 50A, 20v, 1Kv</td>
</tr>
<tr>
<td>5300C</td>
<td>Curve Tracer 2NA to 50A, 20v, 1Kv (extended ranges available)</td>
</tr>
<tr>
<td>5300HX</td>
<td>Discrete Semiconductor Tester 2NA to 50A, 20v, 1Kv (extended ranges available)</td>
</tr>
</tbody>
</table>

(All 5000 Series Testers include 1 TO-220 GAK fixture, may be substituted for a different fixture at customer request.)

### Rack Mount Available

### High Voltage Options for Above

- **HVA-2000**: 2000 Volt Anode/Collector Option (Factory Installation Required)
- **HVG-80**: 80V Gate/Base Option, Recommended for High Gate Voltage MOSFET's. (Factory Installation Required)
- **AUX-150**: Auxiliary 150V Power Supply for Impulse Reset Test and 10x1000 μS

### High Current Options for Above

- **HC-100**: 100 Amp Mainframe
- **HC-1.5/400**: 1.5 Amp High Current Option (@400V for IBO)
- **LO-40**: Extends Low Source to 40A (80V Gate ONLY)

### 5300C and 5300HX Only Options

- **LC-1000**: Low Current Deck (20PA/1PA Resolution) Adds soak to 99 seconds for current less than 1μA
- **HC-500**: 500 Amp High Current Deck
- **HC-1000**: 1000 Amp High Current Deck
- **HC-1200**: 1200 Amp High Current Deck, 10V@1200A, at the terminals
- **ADP-340-4**: Transient Surge 5 Pin Module Test Station
- **ADP-340-5**: Transient Surge 5 Pin Module (or SSOVP) Test Station with Tip-Com, Ring-Com, Tip-Ring, includes 100V/us test. (VBO, IBO, IH, VT, RCOIL, VL, VB, VZ, and ID) (Requires HVA-2000)
### 5300C AND 5300HX ONLY OPTIONS

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADP-340-5G</td>
<td>Same as ADP-340-5 plus Gated Device Option (IGT, VGT, VF, ID, VBO, IBO, IH, VT, IR, IG) (Requires HVA-2000)</td>
</tr>
<tr>
<td>ADP-SURG</td>
<td>Adds 10x1000 μS 10A test to ADP-340</td>
</tr>
<tr>
<td>ADP-410</td>
<td>Inductive Sustaining Test Adaptor (VCEOSUS, VCERSUS, VCESUS, ICEV) to 4A, 1600V</td>
</tr>
</tbody>
</table>

### SCANNER OPTIONS FOR ALL SYSTEMS (SCANNERS REQUIRE A HANDLER BOARD & CABLE OR PERSONALITY FIXTURE)

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADP-401A-8</td>
<td>Scanner for 8 pins Totally Programmable, 30A, 1200V</td>
</tr>
<tr>
<td>ADP-401A-16</td>
<td>Scanner for 16 pins Totally Programmable, 30A, 1200V</td>
</tr>
</tbody>
</table>

### SOFTWARE OPTIONS FOR ALL SYSTEMS

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW-MAP</td>
<td>Wafer Mapping Option (Includes Software/Firmware) Map of Bin, Sort or Test Result Requires X-Y Coordinates from Prober via RS-232</td>
</tr>
<tr>
<td>SW-HIREL</td>
<td>Hi Rel Software Option (Delta percent testing including on-line delta testing with re-test capability)</td>
</tr>
<tr>
<td>SW-CURVE</td>
<td>Auto Generate Curve Trace (Add Curve Trace to any system, included with a 5000C)</td>
</tr>
<tr>
<td>THRML-VBE</td>
<td>Delta VBE for Thermal Transistor Test; Programmable to 10A, 50V, 50MS; requires hardware</td>
</tr>
<tr>
<td>DUAL-VBE</td>
<td>Differential VBE Matching; requires scanner/hardware</td>
</tr>
</tbody>
</table>

### DEVICE ADAPTORS

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADP-310</td>
<td>Opto-Coupler Adaptor, (Requires Opto-Test Fixture) (See Opto-Test Fixtures)</td>
</tr>
<tr>
<td>ADP-320</td>
<td>Regulator (3 terminal) Adaptor, (Requires a Test Fixture) (See Test Fixtures)</td>
</tr>
<tr>
<td>ADP-350</td>
<td>Quadrac/Diac Test Adaptor, (Requires a Test Fixture) (HVG-80 recommended)</td>
</tr>
<tr>
<td>ADP-370</td>
<td>8 pin Dip Opto-Logic Device Adaptor</td>
</tr>
<tr>
<td>ADP-380</td>
<td>Kelvin Adaptor (Accepts standard Test Fixtures)</td>
</tr>
<tr>
<td>ADP-390</td>
<td>Relay Test Adaptor (RCOIL, VOPER, VREL, RCONT, OPTIME, RELTIME)</td>
</tr>
<tr>
<td>ADP-506</td>
<td>I Latch Load Box for Exact Latching Measurements</td>
</tr>
<tr>
<td>ADP-508</td>
<td>Adaptor for 5 Lead Device with Current Sense to 10MA and Kelvin Pins, also Called HEX Sense</td>
</tr>
<tr>
<td>ADP-ICEV</td>
<td>Banana Plug Resistor Cap</td>
</tr>
</tbody>
</table>
## TEST FIXTURES - SELF-TEST

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST-100</td>
<td>Self Test Fixture for 5000 Series (included w/purchase of new Tester)</td>
</tr>
<tr>
<td>ST-200</td>
<td>Self Test Fixture for Low Current Deck (included w/purchase of new Low Current Deck)</td>
</tr>
<tr>
<td>ST-300</td>
<td>Self Test Fixture for Multiplexer (included w/purchase of new Multiplexer)</td>
</tr>
<tr>
<td>ST-345</td>
<td>Self Test Fixture for ADP-340-5 or ADP-340-5-G (included w/purchase of new ADP-340-5)</td>
</tr>
<tr>
<td>ST-601</td>
<td>Self Test Fixture for ADP401A (included w/purchase of new ADP-401A)</td>
</tr>
</tbody>
</table>

## TEST FIXTURES - DISCRETE / SURFACE MOUNT (SOME AVAILABLE W/ KELVIN DUAL CONTACTS FOR DRIVE AND SENSE)

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FXK-220</td>
<td>TO-220/218 (A Version Anode Center Pin) (G Version Gate Center Pin)</td>
</tr>
<tr>
<td></td>
<td>Please consult factory for any discrete or surface mount device test fixture not listed. If sockets are available STI can build a fixture per customer request.</td>
</tr>
<tr>
<td>FX-UW</td>
<td>Any Fixture Wired for universal pin connection (Requires FX-CAB-UW)</td>
</tr>
<tr>
<td>FX-CAB-UW</td>
<td>Universally Wired Fixture Cable for universally wired fixtures</td>
</tr>
</tbody>
</table>

## TEST FIXTURES - DISCRETE OPTO-COUPLER (ALL OPTO FIXTURES REQUIRE ADP-310)

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FX-8P-BLNK</td>
<td>8P Blank Test Fixture for ADP-401A-8</td>
</tr>
<tr>
<td>FX-16P-BLNK</td>
<td>16P Blank Test Fixture for ADP-401A-8</td>
</tr>
<tr>
<td>FX-8P</td>
<td>2 to 8 Pin Test Fixture for ADP-401A-8 (any available 2 to 8 pin socket)</td>
</tr>
<tr>
<td>FX-16P</td>
<td>2 to 16 Pin Test Fixture for ADP-401A-16 (any available 2 to 16 pin socket)</td>
</tr>
<tr>
<td>FX-VCC</td>
<td>Adds Pin Assignable VCC and Logic 1 and 0 to FX-8P, FX-16P</td>
</tr>
</tbody>
</table>

## TEST FIXTURES - PERSONALITY (FOR PROGRAMMABLE SCANNERS ADP-401 AND ADP401A’S)

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Consult Factory for Pricing</td>
</tr>
<tr>
<td>PART NUMBER</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>TEST FIXTURES - ACCESSORIES</strong></td>
<td></td>
</tr>
<tr>
<td>FX-BLNK</td>
<td>Blank Fixture Enclosure drilled with Tester pattern (includes plugs, ferrite beads, coil and hardware)</td>
</tr>
<tr>
<td>FX-BLNKPCB</td>
<td>Blank Fixture Enclosure drilled with Tester pattern, and PCB cut out (includes pcb, plugs, ferrite beads, coil and hardware)</td>
</tr>
<tr>
<td>FX-COIL</td>
<td>Oscillation Suppression Coil</td>
</tr>
<tr>
<td>FX-SCKT</td>
<td>Replacement Sockets for Fixtures</td>
</tr>
<tr>
<td><strong>CABLES (DEVICE CABLE AND CONTROL CABLE RECOMMENDED FOR USE WITH HANDLER/PROBER)</strong></td>
<td></td>
</tr>
<tr>
<td>HAC-100</td>
<td>9 Pin Null Modem Cable</td>
</tr>
<tr>
<td>HCB-125</td>
<td>LC-1000 Control Cable, 6’ (50p Centronics to 50p Centronics)</td>
</tr>
<tr>
<td>HCB-150</td>
<td>Handler Device Cable, 6’</td>
</tr>
<tr>
<td>HCB-200</td>
<td>Handler Control Cable, 6’ (SOT, EOT, Fail, Bins, etc…) (25p D-Sub P to 25p D-Sub S)</td>
</tr>
<tr>
<td>HCB-301</td>
<td>Interconnect Cable from Tester to HCD and Adaptors</td>
</tr>
<tr>
<td>HCB-301K</td>
<td>HCB-301 with Kelvin</td>
</tr>
<tr>
<td>HCB-340-5</td>
<td>Handler Device Cable for ADP-340-5G 6’</td>
</tr>
<tr>
<td>HCB-360</td>
<td>Cable for 9p D-Sub Plug to Socket 6’ or 10’</td>
</tr>
<tr>
<td>HCB-401-8</td>
<td>Handler Device Cable for ADP-401-8 Scanner</td>
</tr>
<tr>
<td>HCB-401-16</td>
<td>Handler Device Cable for ADP-401-16 Scanner</td>
</tr>
<tr>
<td>HCB-410</td>
<td>Handler Device Cable from ADP-410 (Adaptor to Un-terminated leads)</td>
</tr>
<tr>
<td>HCB-500</td>
<td>HC-500 Handler Device Cable 6’ (200A Max)</td>
</tr>
<tr>
<td>HCB-502</td>
<td>HC Anode and Cathode Cable for Device</td>
</tr>
<tr>
<td>HCB-A615</td>
<td>AUX Control Cable (6p Circular P to 6p Circular S)</td>
</tr>
<tr>
<td><strong>INTERFACE BOARDS</strong></td>
<td></td>
</tr>
<tr>
<td>EXT-200</td>
<td>External Control Board, Provides SOT test receives EOT(U1-12) and Pass/Fail(U1-13), 15 Relay Drivers</td>
</tr>
<tr>
<td>PI-200</td>
<td>Prober Interface Card</td>
</tr>
<tr>
<td>HI-100</td>
<td>Handler Interface Card, Relay Closure, 16 Bins</td>
</tr>
</tbody>
</table>
* Indicates that customer has multiple installations.

Our curve tracers and semiconductor testers are in use worldwide for high volume production, quality control and final testing of semiconductor devices. Over 38% of our customers have two or more of our semiconductor test systems. Many have three or more of our automated semiconductor test equipment - one has 30 of our test systems. For referrals to individual customer references, please contact us.

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ABB Hafo, Inc. Sweden
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Advanced Scientific Taiwan
AeRa Corporation U.S.A.
Allen Bradley U.S.A. *
Allied Signal Aerospace U.S.A.
Altronic, Inc. U.S.A. *
Alltest
Anpec
American Reliability Labs U.S.A.
Analytical Solutions
AP Microelectroincs USA
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Astec Pekan - Malaysia
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AVX Corporation U.S.A. *
Avaya Communications U.S.A. *
Base 10 Systems U.S.A.
Barber Colman U.S.A.
Beacon Light Products U.S.A.
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Bourns Xiamen China Ltd
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General Electric Global Research
General Electric India
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Hipro - Thailand
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HTV GmbH
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ICE France
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International Rectifier Czech Rep. *
International Rectifier England *
International Rectifier Italy *
International Rectifier Mexico *
International Rectifier U.S.A. *
Interpoint U.S.A
ITI Indian Telephone India
IXYS U.S.A.
Johnson Controls, Inc. U.S.A.
Jung Jin - South Korea R.O.K.
Kidde Fenwal, Inc. U.S.A.
Kimpson Corporation
Kodenshi - South Korea R.O.K.
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L-3 Communications U.S.A. *
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Microsemi U.S.A. *
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Powerex, Inc.
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Raytheon U.S.A. *
Ray International U.S.A. *
R.E. Phelon PR/DR
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Rohm Electronics U.S.A.
Samsung Aerospace - South Korea R.O.K.
Samyang - South Korea R.O.K.
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Sola Electric U.S.A.
Shanghai JLC Trading Co. Ltd.
Siltek Taiwan