Chroma 8000 Power Supply ATS is excellent for testing various power supplies that includes DC/DC Converter. It provides multiple hardware selections including DC Source, DC Load, Digital Meter, DSO, Timing/Noise Analyzer and Signal Generator, etc. that can be integrated by the software, Power Pro III, on an open platform. Besides a series of prewritten test items, special test items are also created for better testing the DC/DC Converter. As a result the test speed is improved evidently that a full test is applicable as well.

Moreover, an exclusive Test Fixture Receiver is designed to facilitate the test of various production lines in saving time and reducing cost. When there is a need to exchange the production line for test, it can be done easily by replacing the old test fixture from the system and connecting a new one to the Receiver.

Users are able to create new test items using the editing function for any special test requirements on Chroma 8000 ATS and expand the test item database extensively.

PowerPro III also includes powerful report, statistic and management functions, making the system capable to generate various test documents and performing system administration. Because the test and statistical reports are critically important in modern factories for R/D evaluation, QA verification and production tests, these functions are an integral part of the system.

Working under Window98/2000/XP the model 8000 provides test engineers with a dedicated power supply test system in an easy-to-learn Windows environment and allow access to resources provided by Windows.
**SPECIAL TEST ITEMS FOR DC/DC CONVERTER**

Chroma 8000 ATS not only equips a database of standard test items but also has the test items specially designed for testing DC/DC Converter. As a result, the test speed is improved evidently that a full test is applicable as well.

Special test items contain 6 types of DC/DC Converter power supply test requirements. They are OUTPUT PERFORMANCE to inspect the UUT’s output functions, INPUT CHARACTERISTIC to inspect the power input parameters, REGULATION TESTS to inspect the stability of UUT when inputting power and changing load, TIMING AND TRANSIENT to measure the transient state at power on/off and the time of each event, PROTECTION TESTS to inspect the protective circuit and SPECIAL TESTS to provide commands controlling the device via GPIB, RS-232 and RS-485 ports.

**OUTPUT PERFORMANCES**
1. DC OUTPUT VOLTAGE
2. NOISE
3. EFFICIENCY
4. OVERSHEEPT VOLTAGE
5. DYNAMIC
6. SYNC. DYNAMIC

**INPUT CHARACTERISTICS**
7. SWITCHING FREQUENCY
8. SYNC. FREQUENCY
9. INPUT CURRENT
10. INPUT CURRENT INITIAL
11. INPUT POWER
12. VIN RAMP

**REGULATION TESTS**
13. CROSS LOAD REGULATION
14. LINE REGULATION
15. LOAD REGULATION

**TIMING AND TRANSIENT**
16. TURN ON TIME
17. TRANSIENT RESPONSE TIME
18. TRANSIENT SPIKE
19. LINE TRANSIENT

**PROTECTION TESTS**
20. SHORT CIRCUIT
21. OC PROTECTION

**SPECIAL TESTS**
22. CONTROL INSTRUMENT VIA GPIB, RS-232, RS-485 INTERFACE READ/WRITE

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**HIGH PERFORMANCE HARDWARE DEVICES**

1. **Data Acquisition Switch Unit**: Agilent -34970A; Other types or brand of Data Acquisition Switch unit supported upon request
2. **Function / Arbitrary Waveform Generator**: Agilent -33220A; Other types or brand of Function / Arbitrary Waveform Generator supported upon request
3. **Digital Storage Oscilloscope**: TDS-3000/TDS-5000/TDS-7000 series; Other types or brands of DSO supported upon request
4. **Breaker**: 30A / 60A selectable with emergency stop control
5. **System Controller**: Industrial PC
6. **Electronic Load**: Model 63200 / 6330 / 6340 series Electronic Load
7. **Receiver**: Port for connecting test fixture box and test system
8. **Shunt Board**: Provide accurate DC input/output current measurement
9. **DC Source**: Model 6200F /6260 /62120 /62000P Series
10. **Timing / Noise Analyzer**: Model 6011

Other devices support upon request.
**DC POWER SOURCE**

Chroma power supply automatic test system model 8000 supports all Chroma Model 6200, 6200K, 6200F, 6260, 62120, 62000P series DC power sources which may be used as line-in or OVP sources.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>6200F Series</th>
<th>6260 Series</th>
<th>62120 Series</th>
<th>62000P Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power rating</td>
<td>1200~12000W</td>
<td>6000W</td>
<td>12000W</td>
<td>600~1200W</td>
</tr>
<tr>
<td>Voltage range</td>
<td>0~5V/150V</td>
<td>0~10V/600V</td>
<td>0~10V/600V</td>
<td>0~100V/600V</td>
</tr>
<tr>
<td>Programmable current limit</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Programmable OV point</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Analog programming</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Remote sensing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Line-drop compensation</td>
<td>5V</td>
<td>5V</td>
<td>5V</td>
<td>5V</td>
</tr>
</tbody>
</table>

**DC ELECTRONIC LOAD**

Chroma power supply automatic test system model 8000 can support all Chroma Model 6300, 6310, 6330, 63200 and 6340 series DC electronic load. They come with different powers, load modes, slew rates and features. This provides users maximum selection opportunities for different test application requirements.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>6330 series</th>
<th>63200 series</th>
<th>6340 series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load mode</td>
<td>CC/CR/CV</td>
<td>CC/CR/CV/CP</td>
<td>CC</td>
</tr>
<tr>
<td>Power rating</td>
<td>30~1200W</td>
<td>2000~12000W</td>
<td>625W</td>
</tr>
<tr>
<td>Voltage range</td>
<td>1~500V</td>
<td>1~500V</td>
<td>0.8~50V</td>
</tr>
<tr>
<td>Current range</td>
<td>Up to 240A</td>
<td>Up to 600A</td>
<td>Up to 150A</td>
</tr>
<tr>
<td>Slew rate</td>
<td>Up to 10A/µS</td>
<td>Up to 25A/µS</td>
<td>Up to 150A/µS</td>
</tr>
<tr>
<td>Measurements</td>
<td>Voltage/Current</td>
<td>Voltage/Current/Power</td>
<td>Voltage/Current</td>
</tr>
<tr>
<td>Monitoring output</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Current share measurement</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Noise measurement</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Voltage sense input</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sync Signal</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>High Speed</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**TIMING / NOISE ANALYZER**

Chroma power supply automatic test system model 8000 provides an unique timing / noise analyzer, Chroma Model 6011. Its modular design allows users to expand up to 10 input measurement modules. Each module is capable of measuring timing period and noise level. Furthermore, it also provides 16 bits TTL signals and 6 pairs of floating relays for external control. Meanwhile, the 10 multiplexer inputs and 2 DMM and 2 DSO outputs further extend the Chroma Model 6011 for advanced measurement requirements.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>6011</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. of input module</td>
<td>Up to 10</td>
</tr>
<tr>
<td>Noise measurement range</td>
<td>2V/0.4V</td>
</tr>
<tr>
<td>Low Pass Filter</td>
<td>Up to 20MHz</td>
</tr>
<tr>
<td>Input circuit</td>
<td>Differential input</td>
</tr>
<tr>
<td>Timing range</td>
<td>0<del>160/0</del>64 second</td>
</tr>
<tr>
<td>NO. of trigger input</td>
<td>4 sets</td>
</tr>
<tr>
<td>NO. of comparator</td>
<td>2/Input module</td>
</tr>
<tr>
<td>Controllable TTL bits</td>
<td>16 output</td>
</tr>
<tr>
<td>Controllable floating relay</td>
<td>6</td>
</tr>
<tr>
<td>NO. of multiplex input</td>
<td>10</td>
</tr>
<tr>
<td>NO. of multiplex output</td>
<td>2 for DMM &amp; 2 for DSO</td>
</tr>
</tbody>
</table>
DATA ACQUISITION SWITCH UNIT & STORAGE OSCILLOSCOPE

Chroma power supply auto test system model 8000 is capable to support Agilent 34970A Data Acquisition Switch Unit and Agilent 33220A Function / Arbitrary Waveform Generator and most of Tektronix scopes. Other DMM and DSO are supported upon request.

EXCLUSIVE TEST Fixture AND RECEIVER

For the test fixture that needs to be changed when testing different UUT, a Receiver has been developed for Chroma 8000 ATS to connect and remove the fixture easily and quickly when switching the production line for test. It reduces a great deal of cost and saves the time for production line exchange. The special designed test fixture meets the DC/DC Converter’s pin assignments of Interpoint™ Company.

ORDERING INFORMATION

8000 : Switching Power Supply ATS
6011 : Timing/ Noise Analyzer
6011N/ 80611N : Timing/ Noise module
A800004 : 19” Rack for Model 8000
A800005 : PCI Bus GPIB Card (National Instrument)

DC Source : Refer to Model 6200F, 6260, 62120, 62000P Series
DC Load Module : Refer to Model 63200, 6330, 6340 Series
Customer designed exclusive test fixture
Receiver
Shunt Board

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