Oxford Instruments Shasta series power supply features a robust design that has been optimized to power grounded filament X-ray tubes from Oxford Instruments, yet its versatility enables it to power virtually any grounded filament X-ray tube.

Utilizing closed loop emission control circuitry that delivers low ripple, Shasta provides highly regulated beam current and high stability resulting in superior performance. Local and remote analog control enables convenient operation in setting voltage & emission current.

- Models with grid focus control are designed to provide optimal performance with our Apogee tubes

### Benefits
- Compact Design
- Adjustable Emission Current
- Voltage & Current Programming
- Safety Interlock
- Bias Voltage Option Available
- CE & TUV Certified

### Applications
- XRF, XRD, Medical Imaging, Industrial Inspection & NDT

### Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage range:</td>
<td>0-50kV</td>
</tr>
<tr>
<td>Maximum Power:</td>
<td>50W</td>
</tr>
<tr>
<td>Maximum beam current:</td>
<td>1.0mA</td>
</tr>
<tr>
<td>DC Filament Supply:</td>
<td>Current: 0.3 to 3.5A  Voltage: 0 to 5.0 VDC</td>
</tr>
<tr>
<td>Voltage Regulation:</td>
<td>Load: &lt; 0.01 % for 50% of max load variation</td>
</tr>
<tr>
<td></td>
<td>Line: &lt; 0.01% for 10% change in input voltage</td>
</tr>
<tr>
<td>Current Regulation:</td>
<td>Load: &lt; ±2µA (Beam Current)  Line: &lt; ±2µA (Beam Current)</td>
</tr>
<tr>
<td>Ripple:</td>
<td>&lt; 100V peak to peak</td>
</tr>
<tr>
<td>Stability:</td>
<td>± 0.1% over an 8-hour period after 30-minutes warm-up</td>
</tr>
<tr>
<td>Input Voltage &amp; Power:</td>
<td>24VDC, ± 10%; 100 Watts</td>
</tr>
<tr>
<td>Voltage Control:</td>
<td>Local: via multi-turn potentiometer (kV ADJ)</td>
</tr>
<tr>
<td></td>
<td>Remote: via external voltage source 0 to 10V (accuracy ± 1%)</td>
</tr>
<tr>
<td>Interlock:</td>
<td>Short to GND through a 12V lamp: HV/ON, OPEN:HV/OFF</td>
</tr>
<tr>
<td>Temperature Conditions:</td>
<td>Operational: 0 to 45°C  Storage: -20 to + 85°C</td>
</tr>
<tr>
<td>Temperature Coefficient:</td>
<td>0.01 % per °C, voltage and current</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>5.5” H x 3.3” W x 9.45” D (140mm x 83.5mm x 240mm)</td>
</tr>
<tr>
<td>Weight:</td>
<td>3.6 kg (7.9 lbs.)</td>
</tr>
</tbody>
</table>
Shasta 50kV & 60kV Power Supplies

Pin Assignments

<table>
<thead>
<tr>
<th>J1 HV OUTPUT</th>
<th>J2</th>
<th>J3</th>
<th>J4</th>
<th>J5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 +10VDC</td>
<td>1 +24VDC</td>
<td>1 FILAMENT</td>
<td>1 MONITOR RETURN (GND)</td>
<td>+10VDC</td>
</tr>
<tr>
<td>2 GND</td>
<td>2 N.C.</td>
<td>2 FILAMENT RETURN (GND)</td>
<td>2 KV MONITOR</td>
<td>N.C.</td>
</tr>
<tr>
<td>3 KV ADJ</td>
<td>3 kV Prog Input</td>
<td>3 BIAS</td>
<td>3 mA MONITOR</td>
<td>mA Prog Selector</td>
</tr>
<tr>
<td>4 INTLK</td>
<td>4 INTLK</td>
<td>4 INTLK</td>
<td>4 INTLK</td>
<td>INTLK</td>
</tr>
</tbody>
</table>

Product Ordering Table

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Voltage</th>
<th>Power</th>
<th>Grid Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>9700001</td>
<td>50kV</td>
<td>50W</td>
<td>N/A</td>
</tr>
<tr>
<td>9700002</td>
<td>50kV</td>
<td>50W</td>
<td>0 to -300V</td>
</tr>
</tbody>
</table>

Visit xray.oxinst.com or xray-sales@oxinst.com for more information.