The VKX-8253A is an electromagnet focused, 9.3 GHz klystron which has demonstrated peak power of 5.5 MW with 18 kW average, at an RF pulse width of 2.5 µs. The klystron achieved power of 6 MW peak at 6 kW average. The unit was designed to achieve 20 kW average power at 5 MW peak.

**FEATURES:**
- Proven medical, scientific, and industrial klystron derivation
- Low cost, high volume Manufacturing Design
- Proven S-band gun design
- Typical life exceeds 80,000 hours
- Possible to scale to 12 GHz version

**BENEFITS:**
- High reliability & efficiency
- Proven long life designs
- Customizable models for your application

**APPLICATIONS:**
- Industrial
- Medical

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**Typical Operating Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>9.3 GHz</td>
</tr>
<tr>
<td>Beam voltage</td>
<td>132 V</td>
</tr>
<tr>
<td>Beam current</td>
<td>95 A</td>
</tr>
<tr>
<td>Bandwidth, 1dB</td>
<td>±10 MHz</td>
</tr>
<tr>
<td>Peak power</td>
<td>5.0 MW</td>
</tr>
<tr>
<td>Average power</td>
<td>20 kW</td>
</tr>
<tr>
<td>Saturated gain</td>
<td>51 dB</td>
</tr>
<tr>
<td>Efficiency</td>
<td>44.3%</td>
</tr>
<tr>
<td>Pulsewidth</td>
<td>2.5 µs</td>
</tr>
<tr>
<td>Duty</td>
<td>0.4%</td>
</tr>
</tbody>
</table>
VKX-8253A Transfer Curves
9.3GHz, 2/21/2012

Input Power (Watts)

0 10 20 30 40 50 60

O/P Power (kW)

0 1000 2000 3000 4000 5000 6000

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VKX-8253A Saturated Power and Efficiency vs. Cathode Voltage
Duty 0.05%, Frequency 9.3 GHz

Cathode Voltage (kV)

95 105 115 125 135 145

Po-Sat (MW)

2 3 4 5 6 7

Efficiency (%)

30 32 34 36 38 40 42 44 46

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CPI Communications & Power Industries

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With a history of producing high quality products, we can help you with your klystron. Contact us at MPPMarketing@cpii.com or call us at +1 650-846-2800. The data should be used for basic information only. Formal, controlled specifications may be obtained from CPI for use in equipment design.