Communications & Power Industries
Military Radar Products

SOLID STATE
GaN POWER AMPLIFIERS
S to X-Band

TRANSMITTERS
S to X-Band

INTEGRATED MICROWAVE ASSEMBLIES
L to Ka-Band

MAGNETRONS
L to Ka-Band

KLYSTRONS
UHF to W-Band

COUPLED-CAVITY TWTS
S to Ka-Band
Communications & Power Industries military radar products are found in militaries around the globe.

**Integrated Microwave Assemblies**

**Receivers**
- Available in frequencies: L, S, C, X, Ku, Ka Bands

**Absorptive High Power Integrated Assemblies**
- Highly selective filter
- Low noise figures
- Fast recovery time

**Digital Attenuators**
- Available in frequencies: L, S, C, X, Ku, Ka Bands

**Pulse Compressor Assemblies**
- Available in frequencies: L, S, C, X, Ku, Ka Bands

**Upconverters / Downconverters**
- Available in frequencies: L, S, C, X, Ku, Ka Bands

**High Power Integrated Assemblies**
- Fast recovery time
- Low noise figures
- BITE Circuits

**Integrated Front Ends**
- Frequency range: 10 kW to 100 kW

**APPLICATIONS:**
- Missile seekers
- Airborne radar and EW
- Unmanned aerial vehicles (UAV)
- Ground based systems
- Naval radar
- Air traffic control

ElectronDevices@cpii.com
Integral to the protection of warfighters worldwide by providing consistent reliable components for airborne, shipboard, ground, and decoy applications.

**Coupled-Cavity TWTs**
- Up to 15% IBW
- 500 W to 200 kW
- Up to 35% duty

**Klystrons**
- UHF to W band
- Up to 5 MW peak power

**Solid State Power Amplifiers**
- Available in 1 GHz to 10.0 GHz
- Meets stringent specifications
- Mobile and fixed base solutions
- Tried and true performance
- Fielded systems with outstanding MTBF (mean time between failures)

**Transmitters**
- Available in 1 GHz to 18 GHz
- Available in pulsed and CW modes
## CPI Military Radar Products

![Military Radar Image]

### Transmitters

**Typical Operating Parameters**

<table>
<thead>
<tr>
<th>Band</th>
<th>Frequency (GHz)</th>
<th>Output Power</th>
<th>Duty Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low band</td>
<td>2 – 8 GHz</td>
<td>Up to 4 kW</td>
<td>Various</td>
</tr>
<tr>
<td>High band</td>
<td>8 – 18 GHz</td>
<td>Up to 8 kW</td>
<td>Various</td>
</tr>
<tr>
<td>I/J band</td>
<td>6 – 18 GHz</td>
<td>Up to 200 W</td>
<td>CW</td>
</tr>
</tbody>
</table>

### Solid State Power Amplifiers

**Typical Operating Parameters**

<table>
<thead>
<tr>
<th>Band</th>
<th>Frequency (GHz)</th>
<th>Peak Power (KW)</th>
<th>Duty Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>2.7 - 3.0</td>
<td>1.3</td>
<td>10%</td>
</tr>
<tr>
<td>C</td>
<td>5.4 – 5.9</td>
<td>2.0</td>
<td>10%</td>
</tr>
<tr>
<td>X</td>
<td>9.0 – 10.0</td>
<td>1.0</td>
<td>10%</td>
</tr>
</tbody>
</table>

### Klystrons

**Typical Operating Parameters**

<table>
<thead>
<tr>
<th>Band</th>
<th>Freq. (GHz)</th>
<th>Output Power</th>
<th>Duty Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHF</td>
<td>Various</td>
<td>Up to 3.0 MW</td>
<td>Various</td>
</tr>
<tr>
<td>S-band</td>
<td>Various</td>
<td>Up to 5.0 MW</td>
<td>Various</td>
</tr>
<tr>
<td>C-band</td>
<td>Various</td>
<td>Up to 3.0 MW</td>
<td>Various</td>
</tr>
<tr>
<td>X-band</td>
<td>Various</td>
<td>Up to 5.0 MW</td>
<td>Various</td>
</tr>
<tr>
<td>Ku-band</td>
<td>Various</td>
<td>Up to 30 kW</td>
<td>Various</td>
</tr>
<tr>
<td>W-band</td>
<td>Various</td>
<td>Up to 2.5 MW</td>
<td>Various</td>
</tr>
</tbody>
</table>

### Coupled Cavity TWTs

**Typical Operating Parameters**

<table>
<thead>
<tr>
<th>Band</th>
<th>Frequency (GHz)</th>
<th>Output Power</th>
<th>Duty Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-Band</td>
<td>2.1-3.1 GHz</td>
<td>150 kW Pk</td>
<td>Various</td>
</tr>
<tr>
<td>C-Band</td>
<td>5.25-5.90 GHz</td>
<td>Up to 200 kW Pk</td>
<td>Various</td>
</tr>
<tr>
<td>X-Band</td>
<td>8.4-11.8 GHz</td>
<td>Up to 120 kW Pk</td>
<td>Various</td>
</tr>
<tr>
<td>Ku-Band</td>
<td>15.7-17.7 GHz</td>
<td>Up to 60 kW</td>
<td>Various</td>
</tr>
<tr>
<td>Ka-Band</td>
<td>34.5-36.0 GHz</td>
<td>Up to 30 kW</td>
<td>Various</td>
</tr>
</tbody>
</table>

### Magnetrons

**Typical Operating Parameters**

<table>
<thead>
<tr>
<th>Band</th>
<th>Frequency (GHz)</th>
<th>Peak Power</th>
<th>Duty Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>1 - 2</td>
<td>1 W</td>
<td>Various</td>
</tr>
<tr>
<td>S</td>
<td>2.7 – 2.9</td>
<td>800 kW</td>
<td>Various</td>
</tr>
<tr>
<td>X</td>
<td>8.5 – 9.6</td>
<td>250 kW</td>
<td>Various</td>
</tr>
<tr>
<td>Ku</td>
<td>15.6 – 16.7</td>
<td>40 kW</td>
<td>Various</td>
</tr>
<tr>
<td>Ka</td>
<td>32.9 – 33.5</td>
<td>60 kW</td>
<td>Various</td>
</tr>
</tbody>
</table>

---

**With a history of producing high power, high quality products, we can help you with upgrading your military radar systems.**

**Contact us at**  
ElectronDevices@cpii.com  
**or at call us at +1 978-922-6000**

---

©2020 Communications & Power Industries LLC.  
Company proprietary: use and reproduction is strictly prohibited without written authorization from CPI.