Communications & Power Industries
Weather Radar Products

RECIIVER PROTECTORS & LIMITERS
- S-Band
- C-Band
- X-Band

KLYSTRONS
- 750 kW - 1 MW S-Band
- 200 kW - 1 MW C-Band

MAGNETRONS
- 1 MW S-Band
- 250-500 kW C-Band
- 250 kW X-Band

KLYSTRON TRANSMITTERS
- 1 MW S-Band
- 1 MW C-Band
- 250 kW C-Band

MAGNETRON TRANSMITTERS
- 1 MW C-Band
- 350 kW C-Band
- 350 kW Outdoor Unit (C-Band)
- 350 kW Outdoor Unit (X-Band)
Radar is critical for today’s weather forecasting especially for storms near heavily populated areas. These radars assist meteorologists by detecting changes in local weather patterns. They also offer awareness of oncoming weather patterns at a great distance that might affect the local area.

CPI is the world’s largest producer of coaxial magnetrons, klystrons and receiver protectors. With our experience and product breadth, we can support most new and existing weather radar systems.

We are unique when compared to other suppliers as we can deliver individual microwave components or a complete transmitter. Each transmitter provides a wide range of output power options along with custom user interfaces and remote networking capability.

All CPI components and transmitters are rigorously tested to ensure a long and reliable life that minimizes down time and maximizes customer satisfaction.

At Communications & Power Industries, we provide high quality microwave products supporting weather radar with either klystron or magnetron based technology.
Weather Radar Products

Check out all our weather radar products at www.cpii.com

Klystron Weather Radar Transmitters
- S, C, and X-Band transmitters
- Excellent stability & performance
- Tunable
- Up to 1 MW peak output power
- Forced air cooled
- Touch screen with local/remote control
- Ethernet connectivity for remote monitoring & control

Magnetron Weather Radar Transmitters
- S, C, and X-Band transmitters
- Sheltered or outdoor models
- Forced air cooled
- Touch screen with local/remote control
- Ethernet connectivity for remote monitoring & control
- Excellent Doppler performance
- Mechanically tunable frequency

Communications & Power Industries
Klystrons

**Typical Operating Parameters**

<table>
<thead>
<tr>
<th>Band</th>
<th>Frequency (GHz)</th>
<th>Peak Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-Band</td>
<td>2.7 to 2.9</td>
<td>800 kW</td>
</tr>
<tr>
<td>C-Band</td>
<td>5.45 to 5.65</td>
<td>200 kW to 1 MW</td>
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</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>S-Band</td>
<td>2.7 to 2.9</td>
<td>800 kW</td>
<td>Various</td>
</tr>
<tr>
<td>C-Band</td>
<td>5.2 to 5.9</td>
<td>200 kW to 1 MW</td>
<td>Various</td>
</tr>
<tr>
<td>X-Band</td>
<td>8.5 to 9.6</td>
<td>250 kW</td>
<td>Various</td>
</tr>
</tbody>
</table>

Transmitters

**Typical Operating Parameters**

<table>
<thead>
<tr>
<th>Band</th>
<th>Frequency (GHz)</th>
<th>Peak Power (kW)</th>
<th>Average Power (kW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-Band</td>
<td>2.7 to 3.0</td>
<td>850 To 1000</td>
<td>2</td>
</tr>
<tr>
<td>C-Band</td>
<td>5.6 to 5.65</td>
<td>250 to 1000</td>
<td>0.6 to 2</td>
</tr>
<tr>
<td>X-Band</td>
<td>9.4 to 9.6</td>
<td>300</td>
<td>0.3</td>
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</table>

Receiver Protectors and Limiters

**Typical Operating Parameters**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Peak Power</th>
<th>Average Power</th>
<th>Insertion Loss</th>
<th>Recovery Time</th>
<th>Flat Leak</th>
<th>Spike Leak</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-Band</td>
<td>Up to 1.25 MW</td>
<td>Up to 10 kW</td>
<td>&lt;0.8 dB</td>
<td>&lt;1 µs</td>
<td>&lt;50 mW</td>
<td>&lt;250 mW</td>
</tr>
<tr>
<td>C-Band</td>
<td>Up to 1.25 MW</td>
<td>Up to 900 kW</td>
<td>&lt;1.0 dB</td>
<td>&lt;1 µs</td>
<td>&lt;50 mW</td>
<td>&lt;250 mW</td>
</tr>
<tr>
<td>X-Band</td>
<td>Up to 300 kW</td>
<td>Up to 300 kW</td>
<td>&lt;1.0 dB</td>
<td>&lt;1 µs</td>
<td>&lt;50 mW</td>
<td>&lt;250 mW</td>
</tr>
</tbody>
</table>

With a history of producing high power, high quality products, we can help you with your weather radar. Contact us at ElectronDevices@cpii.com or at call us at +1 978-922-6000.