

# Weather Radar Products

## Communications & Power Industries Weather Radar Product Platforms customized for your application

### Klystrons

#### Typical Operating Parameters

Band	Frequency (GHz)	Peak Power
S-Band	2.7 to 2.9	800 kW
C-Band	5.45 to 5.65	200 kW to 1 MW

### Magnetrons

#### Typical Operating Parameters

Band	Frequency (GHz)	Peak Power	Duty Cycle
S-Band	2.7 to 2.9	800 kW	Various
C-Band	5.2 to 5.9	200 kW to 1 MW	Various
X-Band	8.5 to 9.6	250 kW	Various

### Transmitters

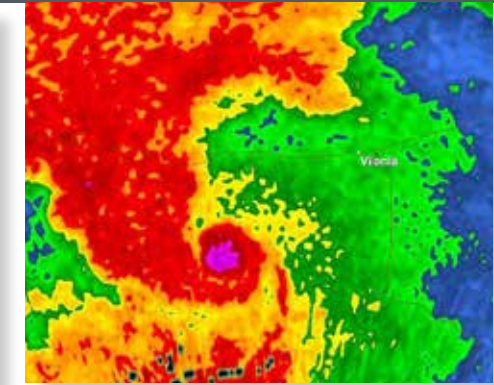
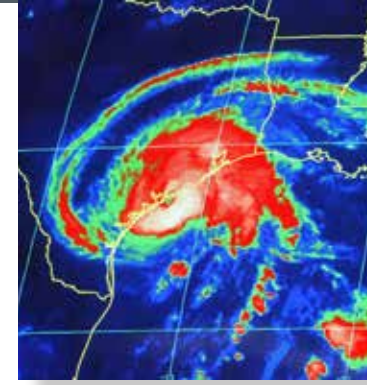
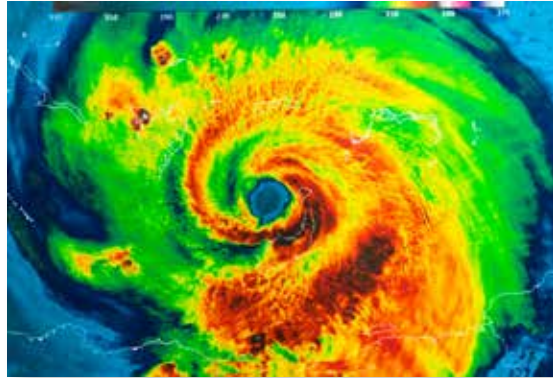
#### Typical Operating Parameters

Band	Frequency (GHz)	Peak Power (kW)	Average Power (kW)
S-Band	2.7 to 3.0	850 To 1000	2
C-Band	5.6 to 5.65	250 to 1000	0.6 to 2
X-Band	9.4 to 9.6	300	0.3

### Receiver Protectors and Limiters

#### Typical Operating Parameters

Frequency	Peak Power	Average Power	Insertion Loss	Recovery Time	Flat Leak	Spike Leak
S-Band	Up to 1.25 MW	Up to 10 kW	<0.8 dB	<1 $\mu$ s	<50 mW	<250 mW
C-Band	Up to 1.25 MW	Up to 900 kW	<1.0 dB	<1 $\mu$ s	<50 mW	<250 mW
X-Band	Up to 300 kW	Up to 300 kW	<1.0 dB	<1 $\mu$ s	<50 mW	<250 mW



## Communications & Power Industries Weather Radar Products

### RECEIVER 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)

With a history of producing high power, high quality products, we can help you with your weather radar.

Contact us at [ElectronDevices@cpil.com](mailto:ElectronDevices@cpil.com) or at call us at +1 978-922-6000.



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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.  
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## Communications & Power Industries Weather Radar Products

### Klystrons

- S-Band
- Excellent frequency stability
- Mechanically tunable frequency
- Air cooled
- Peak power up to 1 MW
- C-Band
- Excellent frequency stability
- Fixed tuned to 50 MHz IB
- Air cooled
- Peak power up to 250 kW



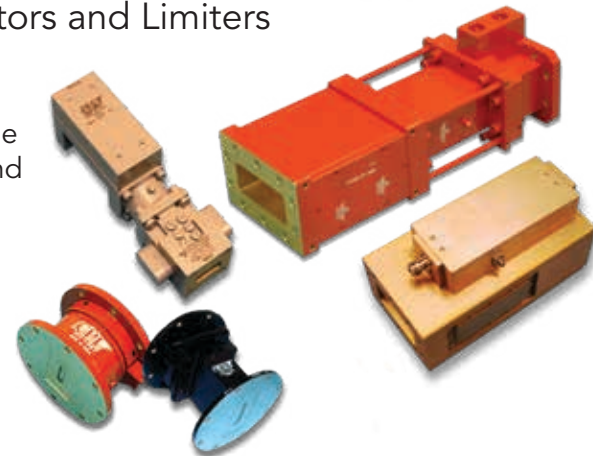
### Magnetrons

- S, C, and X-Band Magnetrons
- Excellent frequency stability
- Mechanically Tunable frequency
- Air cooled anode
- Peak power up to 1 MW



### Receiver Protectors and Limiters

- S, C, and X-Bands
- High peak power
- Low output leakage
- Superior broadband isolation
- Fast recovery time
- Low noise figures



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.

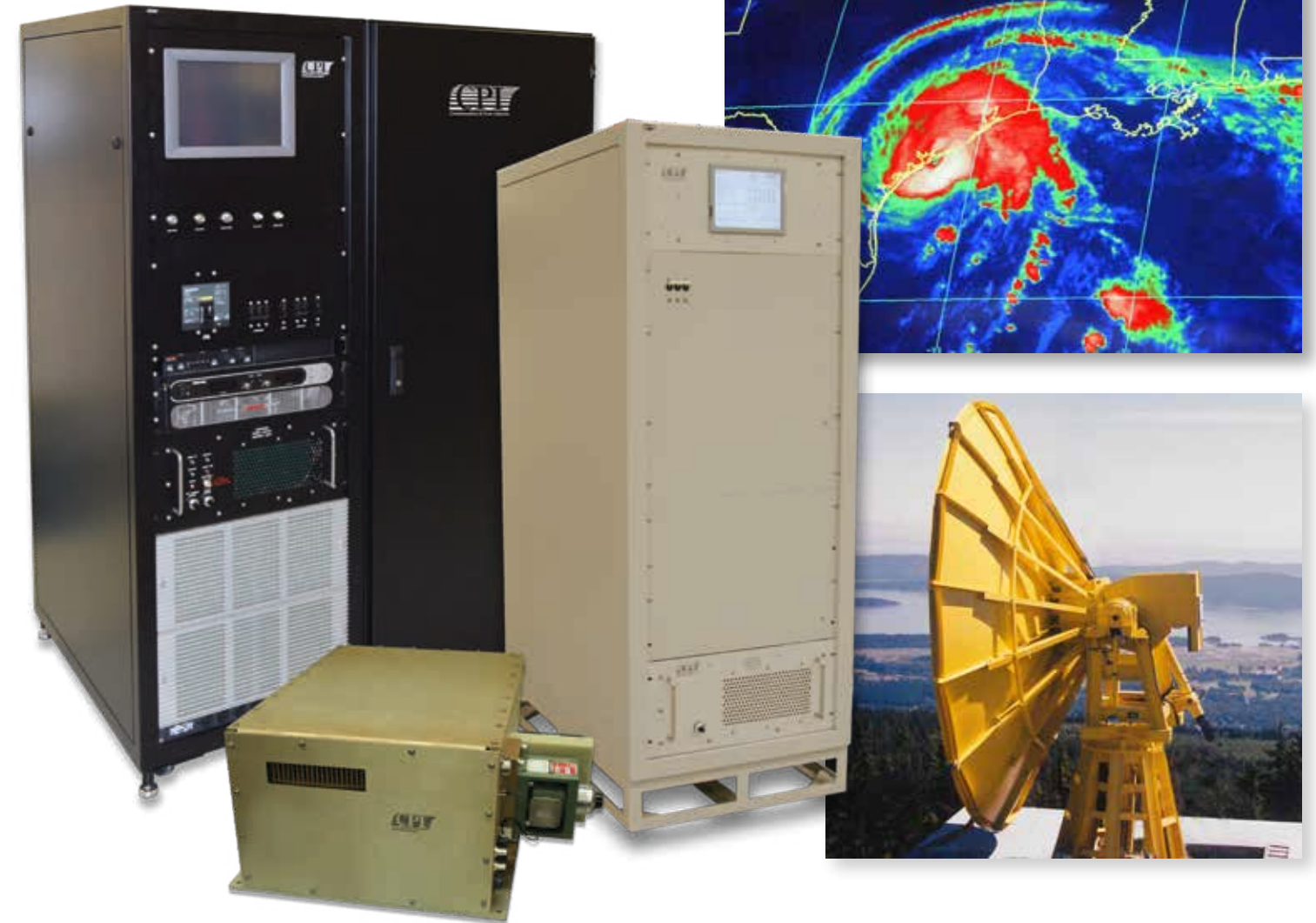
CPI is the world's largest producer of coaxial magnetrons, klystrons and receiver protectors. With our experience and product breadth, we can support most new and existing weather radar systems.

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.

Check out all our weather radar products at [www.cpii.com](http://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