



Communications & Power Industries

# Military Radar Products

*Reliable and Durable*

**SOLID STATE  
GaN POWER AMPLIFIERS**  
S- to X-Band

**TRANSMITTERS**  
S- to X-Band

**INTEGRATED MICROWAVE  
ASSEMBLIES**  
S-, X-, Ku- and Ka-Band

**MAGNETRONS**  
L- to Ka-Band

**KLYSTRONS**  
L- to Ka-Band

**COUPLED-CAVITY TWTS**  
S- to Ka-Band

## Providing global support

Communications & Power Industries reliable and durable products are found in radar systems around the globe

### Integrated Microwave Assemblies

#### Receivers

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



#### Absorptive High-power Integrated Assemblies

- Highly selective filter
- Low noise figures
- Fast recovery time



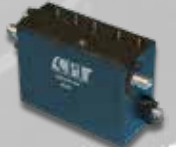
#### Digital Attenuators

- 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



# Reliability and Innovation

Integral to the protection of warfighters worldwide by providing consistently reliable components for airborne, shipboard, ground, and decoy applications.

## Coupled-cavity TWTs

- Up to 15% IBW
- Up to 150 kW
- Up to 35% duty



## Klystrons

- UHF to W-Band
- Up to 5 MW peak power



## Solid State Power Amplifiers

*Meets stringent specifications  
Mobile and fixed-base solutions  
Tried and true performance  
Fielded systems with outstanding MTBF  
(mean time between failures)*

- Available in 1 GHz to 10.0 GHz
- Delivers greater than 300 W minimum at up to 15% duty
- Employs gallium nitride (GaN) transistor technology
- Flexible in layout and architecture



## Transmitters

- Available in 1 GHz to 18 GHz
- Available in pulsed and CW (continuous wave) modes





# Military Radar Products

## Solid State Power Amplifiers

### Typical Operating Parameters

Band	Frequency (GHz)	Peak Power (KW)	Duty Cycle
S	2.7 -3.0	1.3	10%
C	5.4 – 5.9	2.0	10%
X	9.0 – 10.0	1.0	10%

## Transmitters

### Typical Operating Parameters

Band	Frequency (GHz)	Output Power	Duty Cycle
Low band	2-8 GHz	Up to 4 W	Various
High band	8-18 GHz	Up to 8 W	Various
I/J band	6-18 GHz	Up to 200 kW	CW

## Klystrons

### Typical Operating Parameters

Band	Frequency (GHz)	Output Power	Duty Cycle
UHF	Various	Up to 3.0 MW	Various
S	Various	Up to 5.0 MW	Various
C	Various	Up to 3.0 MW	Various
X	Various	Up to 5.0 MW	Various
Ku	Various	Up to 30 kW	Various
W	Various	Up to 2.5 MW	Various

## Magnetrons

### Typical Operating Parameters

Band	Frequency (GHz)	Peak Power	Duty Cycle
L	1 - 2	1 W	Various
S	2.7 – 2.9	800 kW	Various
X	8.5 – 9.6	250 kW	Various
Ku	15.6 – 16.7	40 kW	Various
Ka	32.9 – 33.5	60 kW	Various

## Coupled Cavity TWTs

### Typical Operating Parameters

Band	Frequency	Output Power	Duty Cycle
S	2.1-3.1 GHz	150 kW Pk	Various
C	5.25–5.90 GHz	Up to 200 kW Pk	Various
X	8.4–11.8 GHz	Up to 120 kW Pk	Various
Ku	15.7–17.7 GHz	Up to 60 kW	Various
Ka	34.5–36.0 GHz	Up to 1.1 kW	Various

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

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