

# Beverly Microwave Division 150 Sohier Road • Beverly, MA USA 01915

150 Sohier Road • Beverly, MA USA 01915 +1(978) 922-6000 • BMDmarketing@cpii.com www.cpii.com/BMD









## **Solid State GaN Power Amplifiers**

L-Band

S-Band

C-Band

X-Band





### Beverly Microwave Division www.cpii.com/BMD

GaN Amplifiers provide high gain, high efficiency and excellent stability, with excellent AM/PM and phase-noise performance

## X - Band Solid State Power Amplifiers

Ruggedized for use in pulsed airborne, naval and ground radar

#### X-Band GaN 1.8 kW High Power SSPA

- Frequency range: 9.0 10.0 GHz
- BIT and controls
- Pulsed modules at 10% duty
- 1.8 kW peak power
- Easily combined to create high power X-band radar transmitters

#### X-Band GaN 1.0 kW High Power SSPA

- Frequency range: 9.0 10.0 GHz
- · BIT and controls
- Pulsed modules at 10% duty
- 1.0 kW peak power
- · Easily combined to create high power X-band radar transmitters





## C-Band Solid State Power Amplifiers

Critical for today's weather forecasting



#### C-Band GaN 4.0 kW **High Power SSPA**

- 1.1 kW pulsed module
- BIT and controls via EIA-422 remote connection
- Easily combined to create high power C-band radar transmitters

#### C-Band GaN 2.0 kW **High Power SSPA**

- Frequency range: 5.4 5.9 GHz Frequency range: 5.4 5.9 GHz
  - 2.0 kW pulsed
  - BIT and controls via EIA-422 remote connection
  - Graceful power degradation
  - Liquid or Air cooled options available





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GaN Amplifiers provide high gain, high efficiency and excellent stability, with excellent AM/PM and phase-noise performance

## S-Band Solid State GaN Power Amplifiers

- Frequency range: 2.7 to 2.9 GHz
- BIT and controls via EIA-422 remote connection
- 1.3 kW pulsed modules
- Built-in VSWR protection
- Compliant to NTIA regulatory requirements
- Provide high gain, excellent pulse fidelity
- Excellent pulse fidelity with low AM/PM, phase-noise and spectral regrowth performance
- · Easy to maintain

#### For use in Air Traffic Control radar systems

#### S-Band GaN High Power Transmitters

- Transmitter cabinet with 12 kW minimum peak output power
- · Soft fail by virtue of power combining
- Full redundancy
- >160 dB of power attenuation available
- Designed for ATC shelter applications

#### S-Band GaN High Power SSPA

- 1.3 kW pulsed modules that can be power combined for higher peak power output
- Internal processor with BITE monitoring
- Self protecting





#### For use in Precision Approach Radar Transmitters

#### S-Band GaN High Power Transmitters

- Transmitter with 10 kW minimum peak power output.
- Soft fail by virtue of power combining
- Excellent noise performance due to operation off of stored energy during the RF pulse
- · Designed for small mobile applications

#### S-Band GaN High Power SSPA

- 1.3 kW pulsed modules that can be power combined for higher peak power output
- Internal BIT circuitry via EIA-422 remote connection
- Self protecting









## L-Band Solid State Pulsed Instrumentation Amplifier

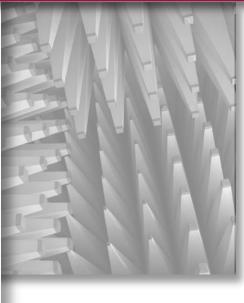
#### For use in EMC Testing

#### L-Band GaN 4 and 8 kW High Power SSPA PIA

- Frequency range: 1 2 GHz
- GaN based
- Versatile
- · Suitable for lab environments
- Designed for the global market
- Modular assembly and built-in fault diagnostics for easy maintenance

2 kW to 8 kW Amplifiers are available by power combining modules if high power is needed with a single output.





## L-Band Solid State CW Amplifier



#### For use in Particle Accelerators

#### L-Band GaN 700 W CW High Power SSPA

- Frequency range: 1.3 GHz
- 700 W CW
- · Liquid cooled
- 700 W units can be power-combined using external power combiners if desired for higher power
- Optimized for scientific applications

Excellent AM/PM and phase noise performance for use in particle accelerators.

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