CPI
Electron Device Business

Solid State GaN Power Amplifiers

High efficiency and reliability

L-BAND SOLID-STATE POWER AMPLIFIERS

S-BAND SOLID-STATE POWER AMPLIFIERS

C-BAND SOLID-STATE POWER AMPLIFIERS

X-BAND SOLID-STATE POWER AMPLIFIERS

Excellent Stability & Phase Noise Performance

Ruggedized for use in pulsed airborne, naval and ground radar

X-Band Solid-State Power Amplifiers

X-Band GaN 1.5 kW High-Power SSPA

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

X-Band GaN 1.0 kW High-Power SSPAs

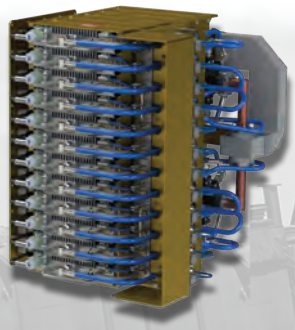
- Frequency range: 8.5 - 10.0 GHz
- BIT and controls
- 1.0 kW peak power
- Output power:
  Option 1: Typical 1000 W
  Option 2: Typical: 400 W (300 W min)
- Duty cycle:
  Option 1: 10% Max.
  Option 2: 15% max.
- VSWR: 2:1 max
- Easily combined to create high-power X-band radar transmitters

S-Band Solid-State Power Amplifiers

S-Band GaN 1.3 kW High-Power SSPA

- Frequency range: 2.7 - 2.9 GHz
- 1.3 kW pulsed module
- BIT and controls via EIA-422 remote connection
- Easily combined for any power level
- Hermetically sealed for extreme environments

S-Band GaN 12.0 kW High-Power Transmitter



- Frequency range: 2.7 - 2.9 GHz
- 1.3 kW pulsed
- BIT and controls via EIA-422 remote connection
- Soft fail combining
- Fully redundant

CPI EDB's S-Band Solid State 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

Used in Air Traffic Control radar systems

S-Band GaN 12kW 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 1.3 kW 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

Used in Precision Approach Radar Transmitters

S-Band GaN 10 kW 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 1.3 kW 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

Solid State Power Amplifiers

- Compact, reliable, and easy to maintain
- High efficiency amd excellent pulse fidelity
- Individual amplifiers and complete transmitters

Band	Frequency	Peak Power	Duty Cycle	Interface	TX Type	Base	Cooling
L	1.0 to 2.0	2	5	IEEE	PIA	GaN	Air
L	1.0 to 2.0	4	5	IEEE	PIA	GaN	Air
L	1.0 to 2.0	8	5	IEEE	PIA	GaN	Air
S	2.9 to 3.7	1.3	10	EIA-422	Module	GaN	Air
S	3.1 to 3.5	1.5	10	EIA-422	Module	GaN	Air
S	3.1 to 3.5	2.1	10	EIA-422	TX	GaN	Air
S	3.1 to 3.7	13	10	EIA-422	TX	GaN	Air
C	5.2 to 5.9	1	10	EIA-422	Module	GaN	Air
C	5.4 to 5.9	4	10	EIA-422	TX	GaN	Air
C	5.4 to 5.9	16	10	EIA-422	TX	GaN	Liquid
C	5.4 to 5.9	50	10	EIA-422	TX	GaN	Liquid
X	9.0 to 10.0	1	10	EIA-422	Module	GaN	Air
X	9.0 to 10.0	2	10	EIA-422	Module	GaN	Air

Ask us about integrating your designs today.

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

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

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