

VSX3614 High-Power X-Band SSPA

X-band Solid State Power Amplifiers are Efficient, High Power, and Compact with proven GaN transistor technology

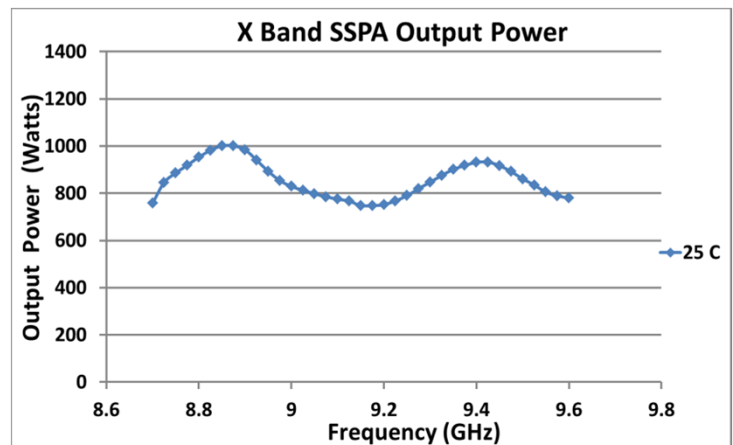
Features

- High efficiency GaN transistors
- BIT and controls via EIA-422 remote connection
- 900 W pulsed modules
- 1.5 kW to 6 kW power combined



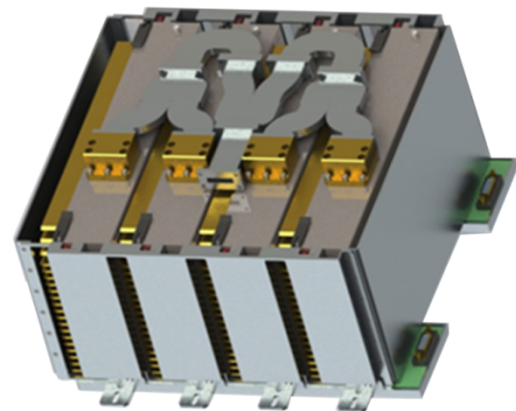
CPI-Built RF Bricks

CPI's VSX3614 Solid State Power Amplifiers are rock-solid, highly-efficient and easy to maintain. The VSX3614 Solid State Power Amplifier is designed for use in radar applications and cover the 8.8 – 9.6 GHz frequency band. Gallium Nitride transistors are combined into 900 W bricks which are air cooled. The 900 W bricks can be power-combined using waveguide combiners for higher power transmitters.



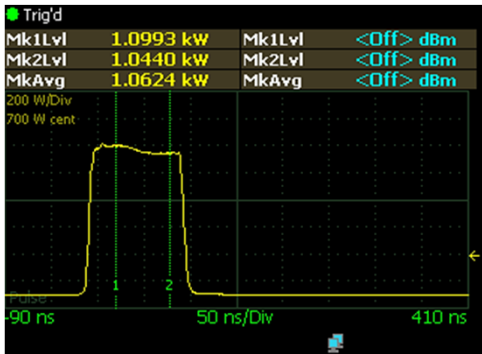
Optimized for Pulsed Radars

This amplifier utilizes GaN transistors to provide high gain, high efficiency and excellent pulse fidelity. The result is excellent AM/PM, phase-noise and spectral regrowth performance. This amplifier is compliant to NTIA regulatory requirements for this frequency with the appropriately shaped input pulse.

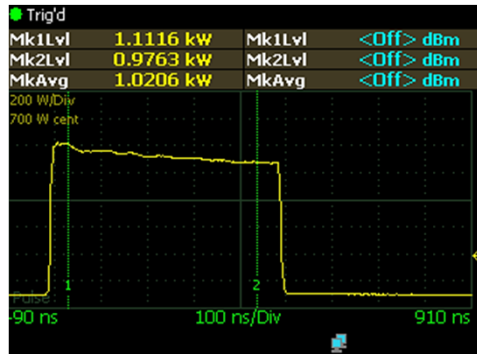


The information listed above represents typical data for the product . The data should be used for basic information only. Formal, controlled specifications should be obtained from CPI for use in equipment design.

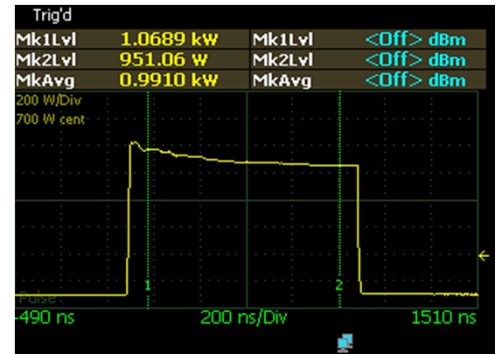
X-Band GaN Solid State Power Amplifier



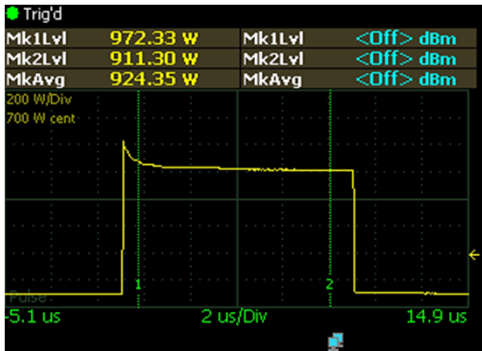
100 nsec PW, 1 kHz PRF



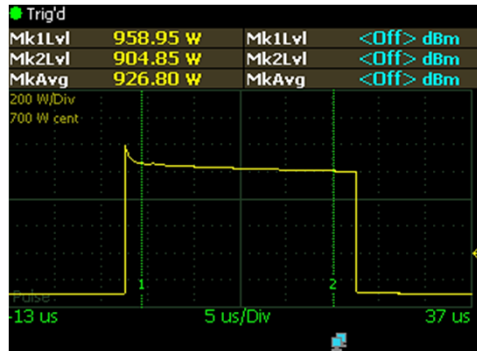
500 nsec PW, 1 kHz PRF



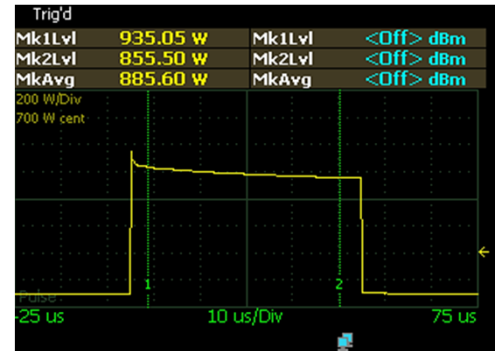
1 µsec PW, 1 kHz PRF



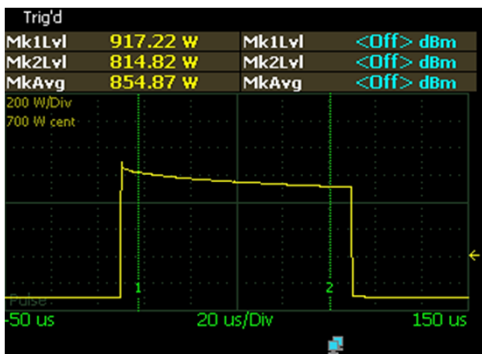
10 µsec PW, 1 kHz PRF



**25 µsec PW, 1 kHz PRF
42 VDC @ 3.1 A**



**50 µsec PW, 1 kHz PRF
42 VDC @ 5.2 A**



**100 µsec PW, 1 kHz PRF
10% Duty
42 VDC @ 9.4 A**

Note: All Power Plots Measured at 9.41 GHz

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Certificate Number: 11607

For information on this and other CPI products visit our webpage at www.cpii.com, or contact CPI Beverly Microwave Division, 150 Sohier Road, Beverly, MA 01915 Telephone: 1 (978) 922-6000 FAX: 1 (978) 922-2736 email: bmdmarketing@cpii.com

Specifications	
Frequency Range	8.8 to 9.6 GHz
Peak RF Output	900 W saturated
Pulse Width	1 to 100 usec (typical)
Pulse Droop	0.6 dB maximum
Duty Cycle	10% maximum
Output Power Flatness	1 dB across Frequency Range
Small Signal Gain	28 dB nominal
Input VSWR	1.5:1 maximum
Output VSWR	1.5:1 maximum
Harmonic Output	-35dBc maximum
Interpulse Thermal Noise	-110 dBc / MHz maximum
Noise Power Density	-100 dBc into a 100 MHz bandwidth
NTIA Compliance	With appropriately shaped input pulse.

Specifications	
Prime Power	42 VDC @ 9.5 Amps
Ambient Temperature	-30C to +50C operating
Relative Humidity	100% non-condensing
Altitude	30,000 feet operating, 70,000 feet non-operating
Shock and Vibration	Ruggedized for Harsh Environments.
Cooling	Forced air
RF Input Connection	SMA female
RF Output Connection	½ height WR90
RF Output and VSWR Monitor	Control Connector
Dimensions (width)	6 " Plus Connectors
Dimensions (height)	2"
Dimensions (depth)	11.5"
Weight	10 lbs max.

The values listed above represent specified limits for the product and are subject to change. The data should be used for basic information only. Formal, controlled specifications may be obtained from CPI for use in equipment design.



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