

PRELIMINARY

X-Band GaN 1.0 kW Solid State Power Amplifier

VSX3695

Features:

- Frequency band: 9.0 – 10.0 GHz
- High efficiency GaN transistors
- BIT and controls
- 1000 W pulsed module @ 10% duty

Benefits:

- Can be power combined
- Long life
- High efficiency
- Excellent pulse fidelity
- Low AM/PM
- Low phase noise



Applications:

- Pulsed radars
- Airborne radars
- TWTA replacements

CPI-Built RF Power Modules

X-band Solid State Power transmitters are efficient, high power, and compact with proven GaN transistor technology.

CPI's VSX3695 Solid State Power amplifier is rugged, reliable, and easy to maintain. The VSX3695 Solid State Power Transmitter is designed for use in radar applications and covers the 9.0 – 10.0 GHz frequency band.

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.

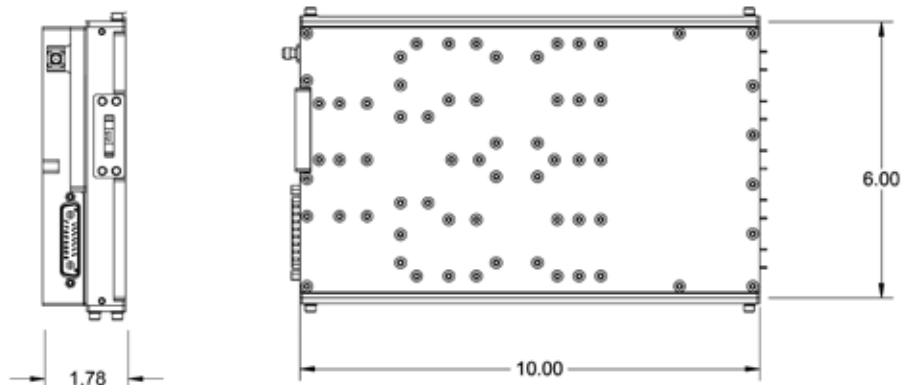


X-Band GaN Solid State Power Amplifier - VSX3695

Specifications	
Frequency Range	9.0 to 10.0 GHz
Saturated Peak RF Output	1000 W
Typical Pulse Width	1 to 100 μ sec
Maximum Pulse Droop	0.6 dB
Maximum Duty Cycle	10%
Output Power Flatness	Dependent on operating bandwidth
Nominal Small Signal Gain	58 dB
Maximum Input VSWR	1.5:1
Maximum Output VSWR	1.5:1
Maximum Harmonic Output	-35 dBc
Maximum Interpulse Thermal Noise	-100 dBc/Mhz
Noise Power Density	-90 dBc into a 100 MHz bandwidth
NTIA Compliance	With appropriately shaped input pulse

Specifications	
Prime Power	50 VDC
Ambient Temperature	-30C to +50C operating
Relative Humidity	90% non-condensing
Shock and Vibration	Ruggedized for harsh environments
Cooling	Forced air
RF Input Connection	SMA female
RF Output Connection	Half-height WR90

Mechanical	
Dimensions (width)	6.0 in (15.24 cm)
Dimensions (height)	1.8 in (4.572 cm)
Dimensions (depth)	10.0 in (25.4 cm)
Weight	9 lbs. (4.08 kg) 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.