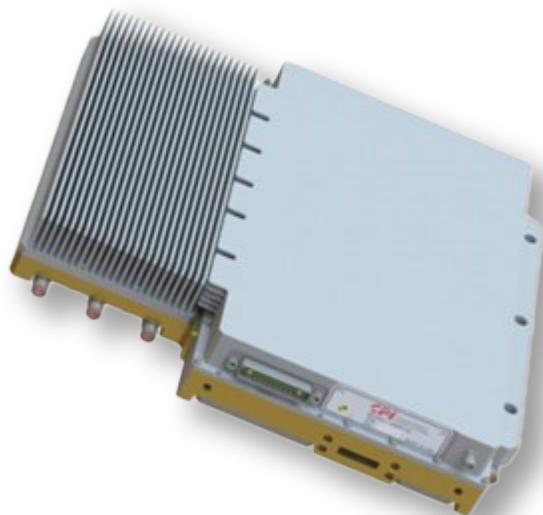


CPI Electron Device Business - RF Power Amplifier



CPI EDB's VSX3746 is an air cooled 1.5 kW X-band solid state power amplifier optimized for pulsed radars.

X-band solid state power amplifiers are efficient, high power, and compact with proven GaN transistor technology.

CPI EDB's VSX3746 solid state power amplifier is rugged, reliable, and easy to maintain. The VSX3746 solid state amplifier 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.

FEATURES:

- Frequency band: 9.0 – 10.0 GHz
- High efficiency GaN transistors
- BIT and controls
- 1500 W pulsed module @ 10% duty

BENEFITS:

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

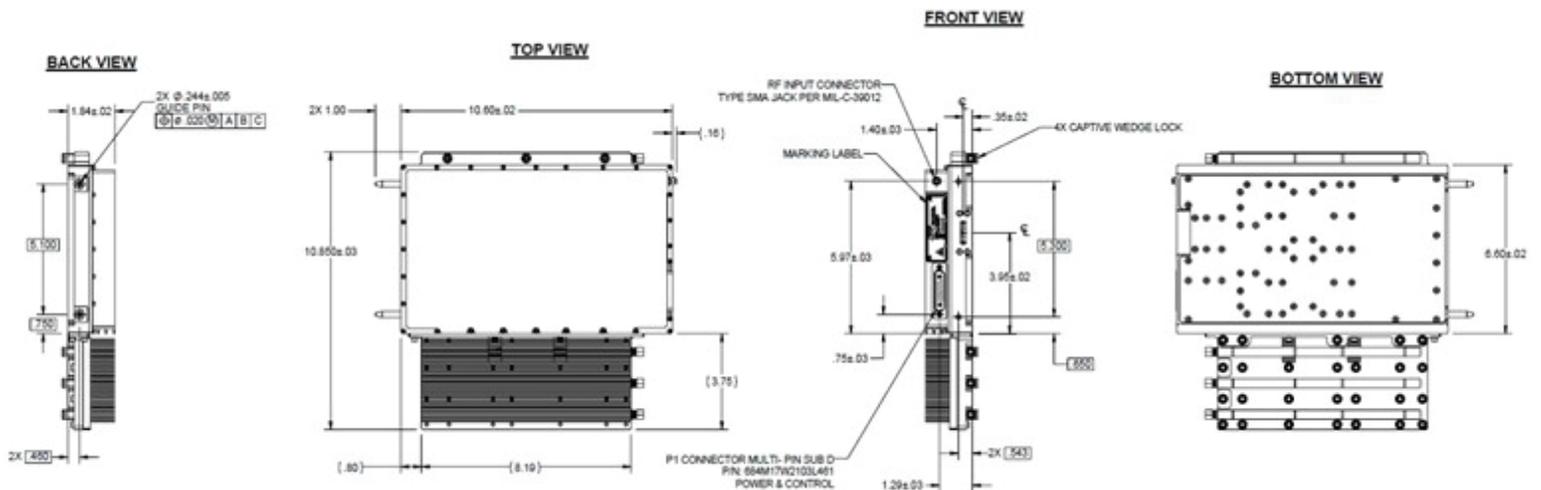
APPLICATIONS:

- Pulsed radars
- Airborne radars
- TWTA replacements

CPI EDB X-Band GaN Solid State Power Amplifier: VSX3746

Specifications

Frequency Range	9.0 to 10.0 GHz	Prime Power	50.5 VDC @ 17 A max (10% Duty)
Saturated Peak RF Output	1.5 kW nominal, 1.2 kWmin.	Ambient Temperature	-30C to +50C operating
Typical Pulse Width	1 to 100 μ sec	Relative Humidity	90% non -condensing
Maximum Pulse Droop	1.25 dB	Shock and Vibration	Ruggedized for harsh environments
Maximum Duty Cycle	10%	Cooling	Air cooled
Output Power Flatness	Dependent on operating bandwidth	RF Input Connection	SMA female
Nominal Small Signal Gain	58 dB	RF Output Connection	Half -height WR90
Maximum Input VSWR	1.5:1	Mechanical	
Maximum Output VSWR	2.0:1	Dimensions (width)	10.9 in (27.7 cm)
Maximum Harmonic Output	-35 dBc	Dimensions (height)	1.84 in (4.763cm)
NTIA Compliance	With appropriately shaped input pulse	Dimensions (depth)	10.6 in (26.9cm)
		Weight	12 lbs. (5.44 kg)



**Beverly Microwave
Division**
150 Sohler Road
Beverly, Massachusetts
USA 01915

tel +1 978-922-6000
email ElectronDevices@cpi-edb.com
fax +1 978-922-8914
web www.cpi-edb.com

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.

©2025 CPI Electron Device Business. Company proprietary; use and reproduction is strictly prohibited without written authorization from CPI EDB.