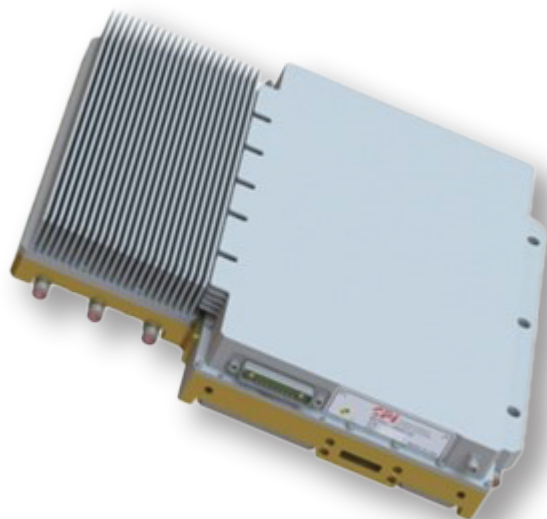


## CPI Electron Device Business - RF Power Amplifier



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

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



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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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