

# X-Band Solid State Power Amplifier Module 9.2 to 10 GHz, 1000 Watts

## Model BMPC928109-1000

### Overview

Stellant PST proudly introduces a new Gallium Nitride (GaN) amplifier for applications in the X-Band radar market. The AB linear design operates over the 9.2-10.0 GHz frequency range intended for use in radar applications. Consistent with its planned technology development roadmap, Stellant is leading the field with the latest in GaN-based RF device performance and advanced amplifier development.



### Features

- AB Linear Gallium Nitride (GaN) Technology
- High Output Power Dynamic Range
- Excellent Efficiency
- RF Output Detectors
- Pulse Width and Duty Factor Protection
- Thermal and Load VSWR Protection

### Performance Specifications

• Frequency Range:	9.2 to 10.0 GHz	• DC Voltage Input:	+28VDC ±1VDC
• Peak Output Power:	1000W typical (60 dBm + 1.5 dB over full temperature)	• DC Supply Power:	300W typical, 5% duty cycle
• Power Gain:	60dB nominal	• RF to DC Efficiency:	16% typical
• Pulse Width:	0.25 to 100 μs max	• Operating Temperature:	-40°C to +65°C baseplate
• Duty Cycle:	5% max	• Operating Humidity:	0 to 95% non-condensing
• Pulse Droop:	<1.0 dB @ 50μs PW	• Operating Shock & Vibration:	Per Mil-Std-810F
• Pulse Rise & Fall Time:	<50ns	• Operating Altitude:	10,000 Ft.
• Input VSWR:	<1.5:1	• PA Enable/Disable:	TTL
• Output Load VSWR:	<1.5:1	• Forward and Reverse Detectors:	Analog voltage
• Load VSWR Protection:	∞VSWR	• RF Connectors:	
• Harmonics:		RF Input and Detector Ports:	SMA Female
2Fo:	<-40dBc	RF Output:	TNC Female
3Fo:	<-50dBc	• DC & Interface Connectors:	Combo-D-Subminiature
• RF Pulse: On-Off Isolation	≥110 dBc	• Size:	9.6" x 6.8" x 2.0"
		• Weight:	5.5 lbs.
		• Modulation Input Connector:	SMC Male Jack

### Power Systems Technology (PST)

105 Baylis Road  
Melville, NY 11747  
T: 631-777-8900

417 Boston St.  
Topsfield, MA 01983  
T: 978-887-5754



[www.Stellantsystems.com](http://www.Stellantsystems.com)



For more information, contact

[Sales-PST@Stellantsystems.com](mailto:Sales-PST@Stellantsystems.com)