

Solid State Power Amplifier (X-Band Radar)

9.2-10 GHz, 1000 Watts — Model BMPC928109-1000

Stellant PST introduces its latest Gallium Nitride (GaN) amplifier for the X-Band radar market. This AB amplifier operates within the 9.2-10.0 GHz frequency range, delivering exceptional performance for radar applications.

Aligned with its technology development roadmap, Stellant PST remains forefront of GaN-based RF innovation, setting new standards in advanced amplifier design.



KEY 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

SPECIFICATIONS

Frequency Range	9.2-10.0 GHz
Peak Output Power	1000W typical (60 dBm + 1.5 dB) over full temperature
Power Gain	60 dB nominal
Pulse Width	0.25 to 100 μ s max
Duty Cycle	5% max
Pulse Droop	<1.0 dB @ 50 μ s PW
Pulse Rise & Fall Time	<50ns
Input VSWR	<1.5:1
Output Load VSWR	<1.5:1
Load VSWR Protection	∞ VSWR
Output Fwd. & Ref. Sample	-60dBc
Harmonics	
2Fo	< -40 dBc
3Fo	< -50 dBc
RF Pulse: On-Off Isolation	\geq 110 dBc




DC Voltage Input	+28VDC \pm 1VDC
DC Power Supply	300W typical, 5% duty cycle
RF to DC Efficiency	16% typical
Operating Temperature	-40°C to +65°C baseplate
Operating Humidity	0 to 95% non-condensing
Operating Shock & Vibration	Per Mil-Std-810F
Operating Altitude	10,000 Ft.
PA Enable/Disable	TTL
Forward & Reverse Detectors	Analog voltage
RF Connectors	
RF Input and Detectors Ports	SMA Female
RF Output	TNC Female
Size	9.6" x 6.8" x 2.0"
Weight	5.5 lbs.
Modulation Input Connector	SMC Male Jack

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