

# X-Band Solid State Power Amplifier Module

## 9-10 GHz, 1500 Watts — Model BMCAP99109-1500

Stellant PST introduces a new Gallium Nitride (GaN) amplifier for the X-Band radar market. The AB linear design operates over the 9-10 GHz frequency range, featuring pulse width and duty factor protection as well as thermal and load VSWR fault monitoring. Advancing GaN-based RF performance, Stellant leads in amplifier development for radar applications.



### KEY FEATURES

- AB Linear Gallium Nitride (GaN) Technology
- High Output Power Dynamic Range
- Excellent Efficiency
- RF Output (Forward/Reverse)
- Thermal and Load VSWR Protection
- Optional Digital Interface for Control & Status Monitoring
- Fast Blanking
- Low Phase Noise

### SPECIFICATIONS




Frequency Range	9 -10 GHz
Peak Output Power	1500W Typical
Power Gain	62 dB nominal
Power Gain Variation	±2 dB
Pulse Width	0.25 to 100 µs max
Duty Cycle	< 6% max
Pulse Droop	≤ 0.015dB/µs
Pulse Rise & Fall Time	< 50ns
Input VSWR	<2:1
Output Load VSWR	<2:1
RF Input Sample	15 dBc
<b>Harmonics</b>	
2Fo	< -40 dBc
3Fo	< -50 dBc
RF Pulse: On-Off Isolation	≥ 110 dBc

DC Voltage Input	+28VDC ± 1VDC
DC Supply Current	12.5 Amps nominal for 5% DF
RF to DC Efficiency	25% nominal
Operating Temperature	-40°C to +65°C baseplate
Operating Humidity	0 to 95% non-condensing
Operating Shock & Vibration	Per Mil-Std-810F
Operating Altitude	Up to 30,000 Ft
PA Enable/Disable	Low Voltage TTL
<b>RF Connectors</b>	
RF Input and Sample Ports	SMA
RF Output	Type TNC (WG -90 Optional)
DC & Interface Connector	Combo-D-Subminiature
Size	9.6" x 6.8" x 2.00"
Weight	5.5 lbs

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