

Solid State Power Amplifier (Pulsed)

3.1-3.5 GHz, 900 Watts — Model BMPC318358-900

Stellant PST proudly introduces a new Gallium Nitride (GaN) amplifier for applications in the S-Band radar market. The AB linear design operates over the 3.1-3.5 GHz frequency band and is easily modified to also support 2.9-3.1 GHz radar applications. The amplifier design features include options for control of phase and amplitude to allow for integration into high power systems utilizing conventional binary or phased array combining approaches for power levels of up to 10kW.



KEY FEATURES

- AB Linear Gallium Nitride (GaN) Technology
- High Output Power Dynamic Range
- Excellent Efficiency
- RF Input & Output Sample Detectors
- Pulse Width and Duty Factor Protection
- Thermal and Load VSWR Protection
- Optional Digital Interface for Control & Status Monitoring
- Optional Phase and Amplitude Control
- Suitable Building Block for Phased Array Systems

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	> 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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