

Solid State Power Amplifier Module

2-6 GHz, 100 Watts — Model BME2969-100

Stellant PST introduces a 2000MHz–6000MHz, 100W TWT replacement SSPA in a compact, lightweight, ruggedized form, ideal for UAV, airborne, pod, mobile, and surface applications. Featuring built-in protection, monitoring circuits, and high-efficiency solid-state technology, it supports phased array systems with phase-matching capabilities. The unit self-protects under fault conditions and resumes normal operation automatically, ensuring reliable performance in harsh environments.



KEY FEATURES

- High Power Density — In Small Compact Package
- Ideally Suited for Airborne/Surface/Mobile Applications
- Wideband Operation — Multi-complex Waveforms
- Built In Forward and Reverse Coupler
- Open/Short & High VSWR Load Monitoring/Protection
- Temperature and Current Monitoring/Protection
- Low Voltage Input Power 28V DC




SPECIFICATIONS

Frequency Range	2-6 GHz	DC Input	+28.5 ±0.1VDC
RF Power Output	100 Watts Saturated Typical	DC Power @ 28V	600W max
Gain	59 dB ± 3dB Typical	Efficiency (DC to RF)	20% Typical
RF Input Overdrive	10 dBm max	DC Bias	AB Linear
Modulation Format	AM/FM/CW/Digital/Pulse	Noise Figure	<18 dB
Input VSWR	2.0:1 max	Noise Output Power	-95 dBm/Hz max (No RF)
Output into 2:1 VSWR	85W Typical	RF Input/Output Connectors	SMA/TNC
Harmonic (2nd/3rd)	< -15/20 dBc (2Fo/3Fo) Typical	Control/DC Connector	D-Subminiature
Spurious	< -60 dBc	Operating Temperature	-40 to 65°C Baseplate (external heatsink required)
Open/Short	Fully Protected (turn down)	Environmental	Surface/Airborne 95% Non-Condensing 40,000 ft
Control Interface		Size	7.75" x 3.5" x 1.75"
PA Enable (Blanking)	RS-422 Diff or TTL Logic	Weight	~3.0 lbs
Summary Fault Output	TTL Logic (Temp, Current)		
Temperature Monitor	Analog Output (30 mV/°C)		
Forward/Reverse Detector	Analog Output (0-5V)		
Current Monitor	Analog Output (1V=10A)		
PA Prime Power Status	TTL Logic		

Power Systems Technology (PST)

105 Baylis Road | 417 Boston St.
Melville, NY 11747 | Topsfield, MA
T: 613-777-8900 | T: 978-997-5754



StellantSystems.com   
Sales-PST@stellantsystems.com
info@stellantsystems.com