

Solid State Power Amplifier Module

2-6 GHz, 75 Watts w/Power Control — Model BME2969-75

Stellant PST offers its latest 2000MHz–6000MHz TWT replacement SSPA, delivering 75W linear power in a compact, lightweight, and ruggedized form. Designed for UAV, fixed-wing, and rotary-wing applications, it features built-in protection, monitoring circuits, and high-efficiency solid-state technology. The unit self-protects under fault conditions and resumes normal operation once resolved, ensuring reliable performance in harsh environments.



KEY FEATURES

- Developed for Airborne Data Links; i.e. Full Motion Video
- Programmable Power Control (ALC) 0.1 dB steps
- High Power Density — Compact, Lightweight Package
- Ideally Suited for UAV/Fighter Jet/Rotary Wing
- Dual Band Operation — Digital/AM/PM Waveforms
- Forward and Reverse Power Monitoring
- Open/Short & High VSWR Load Monitoring/Protection
- Temperature and Current Monitoring/Protection
- MTBF > 20K Hours

SPECIFICATIONS




Frequency Range	2-6 GHz
RF Power Output	100 Watts saturated typical
RF Linear Power	75W typical
RF Input	-10 to 0 dBm typical
Gain (Open Loop)	59 dB ± 3 dB typical
Power Control	± 1.0 dB (Pout > 40 dBm)
RF Input Overdrive	16 dBm max
Modulation Format	AM/FM/CW/Digital/Pulse
Input VSWR	2.0:1 max
Harmonic (2nd/3rd)	< -15/20 dBc typical
Spurious	< -60 dBc
Control Interface	
PA Enable (Blanking)	RS-422 (Discrete), RS-485
Summary Fault Output	TTL Logic (Temp, Current, VSWR)
Temperature Monitor	RS 485
Forward Monitor	RF Sample Port
Current Monitor	RS 485
ALC Commands	RS 485

Open/Short	Full Protected (shut down)
DC Input	+28 VDC + 10%
DC Power @ 28V	500W max
Efficiency (DC to RF)	18% typical
DC Bias	AB Linear
Noise Figure	< 18 dB
Noise Output Power	-85 dBm/Hz max (no RF)
RF Input/Output Connectors	SMA/TNC
Control/DC Connector	D-Subminiature
Operating Temperature	40-65°C Baseplate (external heatsink required)
Environmental	Surface/Airborne
	95% Relative Humidity
	Vib/Shock/Crash
EMI/EMC	MIL-STD-461F RE102, RS103
MTBF	> 20K Hours
Size	6.75" x 3.5" x 1.7"
Weight	2.5 lbs

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