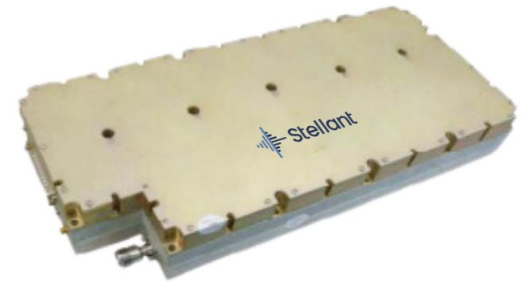


Solid State Power Amplifier Module

2000-6000 MHz, 300 Watts – Model BME2969-300

Stellant PST offers a new GaN amplifier for ground, airborne, and surface long-pulse X-Band radar applications. Operating from 9.8 to 10.5 GHz with 0.1-1000µs pulse widths, it is ideal for TWT replacement and new systems. The design includes self-protection for load VSWR, duty factor, pulse width, and temperature, with graceful degradation in case of RF module failure. Offering up to 16kW power, it delivers up to 10 times the MTBF of a TWTA, ensuring higher reliability and lower maintenance costs.



KEY FEATURES

- Highest Power Density to Footprint Ratio
- Ultra Wideband Operation
- Highest Efficiency Over Entire Bandwidth
- Rugged and Reliable
- Extreme Temperature Range Usage
- RF Output Coupled Sample Port
- Internal DC to DC Converters
- Suitable Building Block for Rack Mounted Systems
- Maintains Output Power w/Real-World Load Conditions

SPECIFICATIONS




Frequency Range	2000-6000 MHz
Saturated Power Output (Psat)	300 Watts
Output Power into 2.0:1 VSWR	200 Watts Min
RF Input Range	-10 to 0dBm typical
RF Input Overdrive	+10 dBm max
DC Bias	Linear
Modulation Format	Multi-tone/CW/AM/FM/Pulse
Input VSWR	2.0:1 Max
Output Load VSWR	2.0:1 typical
Harmonic (In Band 2nd/3rd)	< -20 dBc typical
IM Products (4 Tones)	< -20 dBc typical
Spurious	< -60 dBc
Stability	Open/Short Tested
Built in Test	Composite Fault Indication RS-422 (Over Temp, Over Current)
Fwd/Rev Sample	Analog Voltage
Noise Power Output	
Biased	-70 dBm/Hz typical
Quieted	-150 dBm/Hz typical

Summary Fault Indication	3.3V RS-422
PA Blanking Enable/Disable	3.3V RS-422 (<5µS)
DC Input	18-32 VDC
DC Power @ 28V	1800W typical
Efficiency (DC to RF)	18% typical
RF Connectors	
RF Input	SMA (1X)
RF Output	SC (1X)
RF Out Coupled Sample	SMA (1X)
Interface Connector	D-Subminiature (1X)
DC Power Connector	D-Subminiature (1X)
Operating Temperature	-40 to +70°C Baseplate (external heatsink required)
Altitude	Up to 50k ft
Relative Humidity	100% Condensing
Environmental	Shock/Vibration MIL-STD-810F
Size	15.25" x 7" x 2.67"
Weight	17 lbs max

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