

Solid State Power Amplifier Module

4-18 GHz, 50 Watts – Model BME49189-50

Stellant PST introduces a new ultra-wideband 4-18GHz GaN RF amplifier, enhancing bandwidth and power density. This compact, high-power module is ideal for communication, electronic warfare, and radar systems, supporting UAV, airborne, ground mobile, surface, and shipboard applications.



KEY FEATURES

- Ultra Wideband Operation
- High Efficiency
- Full Power Across the Entire Bandwidth
- Rugged and Reliable
- Low Harmonic Distortion
- Compact and Lightweight
- GaN Technology

SPECIFICATIONS

Frequency Range	4-18 GHz
RF Power Output (P3dB)	>50 Watts typical
Gain @ 40 Watts typical	> 49 dB typical
Gain Flatness @ 40W (50Ω)	±4.5dB typical
Class of Operation	AB Linear
Input VSWR/Output VSWR	2.0:1 Maximum
Output Load VSWR	2.0:1 Full Power
Harmonics	
2fo	< -16 dBc typical
3fo	< -30 dBc typical
Noise Output Power	-105 dBm/Hz typical
Spurious	< -60 dBc
Stability	Open/Short Tested
Built-in Test	Composite Fault Indication
	Over Current Fault
	Over Temperature Fault

DC/Control Interface	7-pin Combo D
PA Enable/Disable	5.0V TTL <1.2 us full RF ON/OFF typical
DC Input	+28 Vdc + 0.3 Vdc
Max DC Power	< 370W
DC Power @ Standby	< 10W
Efficiency (DC to RF)	> 15% typical
RF Connectors	
RF Input	SMA Female
RF Output	SMA Female
Operating Temperature	-40 to +85°C Baseplate (external heatsink required)
Environmental	Shock/Vibration MIL-STD-810F
Relative Humidity	95% Non-condensing
Size	6.56" x 3.50" x 0.84"
Weight	1.5 lbs. max




*Performance specified -40°C + 55°C baseplate

*Performance may degrade linearly above +55°C baseplate

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