

The PA9G10G250V6 is a 250W high-performance power amplifier operating across a 9 to 10 GHz frequency range suitable for Pulse applications.

This amplifier delivers a typical output power of 54 dBm and provides a typical small-signal gain of 60 dB, with a gain variation of ± 2 dB. These exceptional performance characteristics are achieved using advanced Gallium Nitride (GaN) technology.

Designed for reliability and precision, the amplifier features an SMA connector for input and a WR90 waveguide port for output. Additionally, it includes a calibration function, allowing users to maintain optimal performance over time and across varying temperature conditions.

The amplifier is designed to operate within a wide temperature range of -40°C to $+85^{\circ}\text{C}$, ensuring consistent performance in diverse environments. This model is intended for indoor use; please contact us if you prefer the outdoor hub mount model.

Product Features:

- GaN Solid State Power Amplifier
- Suitable for pulse applications
- Minimum Small Signal Gain 60 dB
- Typical Output Saturation Power 54 dBm
- Supply Voltage 100 to 240 VAC 50/60 Hz
- 50 Ohm Matched Input/Output
- Digital Attenuator
- Over-voltage Protection
- Over-temperature protection
- Over-current Protection
- Reverse-polarity protection
- Auto Calibration
- Solid State MMIC Reliability
- Instant On (no warm-up)
- Rack mounted 4U model
- Monitoring and Control Communication through S232/**RS485**/RS422/USB/LAN (customer selected)



Application:

- Radar Systems
- Satellite communication
- TWTA Replacement
- Research and Development
- Military and Aerospace Applications

Electrical Specifications ($T_A=+25^{\circ}\text{C}$)

Parameter	Typ	Units
Frequency Range	9,000 – 10,000	MHz
Minimum Small Signal Gain	60	dB
Minimum Saturated Output Power (Psat)	54	dBm
Gain Variance (Maximum)	+/-2	dB
Gain Variation Over Temperature (-40°C to +70°C)	+/-2	dB
Gain adjustment range	15	dB
Gain adjustment step size	0.5	dB
Input Return Loss	-15	dB
Spurious	-60	dBc
Operating voltage	100 to 240 (50/60Hz)	VAC
Supply Current	4	A
Weight	10	Kg
Size	4U rack, 50cm deep	
Impedance	50	Ohms
Input / Output Connectors	SMA / WR-90	
Control and Monitoring	Built-in control, monitoring and protection circuits, RS-485 serial interface for monitoring and control	

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +90°C
Thermal Shock	-40°C to +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G 1.5 Hours Per Axis
High-Temperature Burn-In	Temperature +85°C for 72 Hours
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Controlled Environment)
IP rating	IP-42

Handling Precautions



Caution!
ESD-Sensitive Device

RF VOLTAGE HAZARD: Contact with RF fields at the output connector can cause burns or electric shock. High levels of RF/Microwave energy may be present when the unit is operating.

HIGH DC CURRENT HAZARD: High levels of DC current are present when the unit is operating.

**Each amplifier is
shipped in a hard and
well-protected carry case.**



Contact Information

For the latest specifications, additional product information, worldwide sales and distribution locations:

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