

# **Applications**

Test and Measurement Electronic Warfare Radar Broadband Jamming Public Safety

# **Quality & Certifications**

AS9100 Rev C ISO9001:2008 RoHS compliance Conflict Minerals Compliant



## PA0718-005 5W SOLID STATE POWER AMPLIFIER MODULE

#### **FEATURES**

Class AB GaN design Instantaneous ultra-wide Bandwidth Suitable for all single channel modulation standards Built-in protection circuits High reliability and ruggedness

## **ELECTRICAL SPECIFICATIONS**

Parameter	Specification	Notes
Operating Frequency Range	0.7 - 18.0 GHz	
Power Output Past	5 Watt Min	
Power Gain	37 dB Min	
Power Gain Flatness	5 dB p-p Max	
Input Return Loss	10 dB Min	
Harmonics 2 <sup>nd</sup> / 3 <sup>rd</sup>	-20 dBc Typ	-10~-15dBc Typ up to 4GHz
Non Harmonics Spurious	-60 dBc Max	
Operating Voltage	32 VDC Nom	
Current Consumption	5.0 Amp Max	At rated Pout
Input Power Protection	0 dBm Max	<10 Sec without damage
Load VSWR Protection	3:1	<1 minute at rated Pout

### **ENVIRONMENTAL CHARACTERISTICS**

Parameter	Specification	Notes
Operating Case	-20 to +65 °C	
Temperature		
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensation

### **MECHANICAL SPECIFICATIONS**

Parameter	Specification	Notes
Dimensions	160 x 140 x 27 mm	Excluding connectors
Weight	1.4 Kg.	
RF Connectors In/Out	SMA female	Cover Flange
DC Power / Interface	9-Pin D-Sub	
Connector		
Cooling	External Heatsink	Forced air required

### **D-SUB CONNECTOR PIN ASSIGNMENT**

Pin	Function	Description
PIN	Function	Description
1		N/A
2		N/A
3	Current Sensor	I <sub>D</sub> @50mV/100mA Typ
4	Temp Sensor	$V_T$ @10mV/°C + 500mV Typ
5	Shutdown	TTL
6,7	VDD	32VDC
8,9	GND	Ground

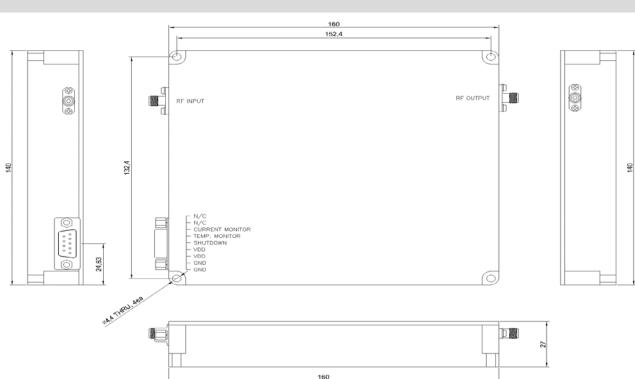
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#### **Experienced**

MtronPTI continues nearly fifty years of service to aerospace, defense communication and control, Internet and mobile infrastructure, lab and field instrumentation EMs.

### **Vertically integrated**

MtronPTI provides High reliability, High Power Solid State Power Amplifier solutions for demanding applications. Our design and manufacturing capabilities cover 50KHz to 47GHz frequency range with power levels of 1W to 4kW for CW & Pulse application modules and over 10kW for such systems. Synergy between our engineering manufacturing—from concept, simulation, electrical & mechanical layouts to assembly & testing capabilities allow for quick engineering & manufacturing responses to customer requests.

### One-on-one technical relationships

Each project is unique in design, environmental, schedule and cost requirements. **MtronPTI** engineers work with your designers to select the best approach. Six sigma and AS9100 Rev C quality systems ensure reliable solutions.

### Long term support

MtronPTI uses Rapid Process Feedback, Lean Manufacturing and Demand Flow Technology for right product, right time, on specification. MtronPTI also manages the supply chain: aligning forecasts, qualifying purchased component suppliers and working with distributors, hubs and portals to make sure every time the production line reaches for an MtronPTI part, it'll be there.

















