

Applications
Test and Measurement
Electronic Warfare
Radar
Broadband Jamming
Public Safety

Quality & Certifications

AS9100 Rev C ISO9001:2008

Global Service Centers

Orlando, USA Noida, India



PA1020-010 1 to 2GHz 10W SOLID STATE HIGH POWER AMPLIFIER MODULE

FEATURES

Class AB linear LDMOS design Instantaneous wide bandwidth Suitable for all single channel modulations standards Built-in monitoring and protection circuits High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	1.0 - 2.0 GHz	
Power Output Psat	10 Watt Min	CW
Output Power @ P1dB	6 Watt Min	
Power Gain	40 dB Min	
Gain Flatness	3.0 dB p-p Max	
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc Typ	30dBm/Tone, Δ = 1MHz
Harmonics	>20 dBc	
Non Harmonics Distortions	>60 dBc	
Operating Voltage	28 - 30 VDC	
Current Consumption	2.0 Amp	At rated Pout
Max Input Power	+8 dBm	Without damage
Load VSWR Protection	∞:1	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case	-20 to +75 °C	
Temperature		
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non Condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	125x63x27mm	Excluding Connectors
Weight	300 gr.	Typical Weight
RF Connectors In/Out	SMA female	
DC Power / Interface	9-Pin D-sub	
Connector		
Cooling	External Heatsink required	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

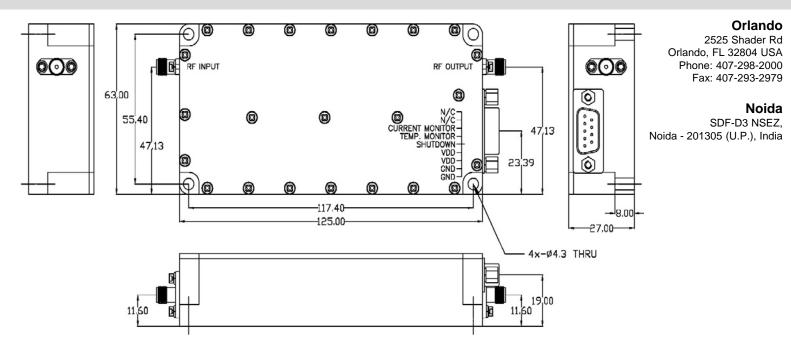
Pin	Function	Description
1	FWD	N/C
2	REV	N/C
3	CURRENT SENSOR	I _D @100mV/100mA Typ
4	TEMP SENSOR	$V_T@10mV/^{\circ}C + 500mV Typ$
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

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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.

















