

Solid State Power Amplifier, Broadband 2.5-6.0GHz, 40dB Gain, SMA Female Connectors, 10 Watts

RAMP-2.5-6.0-40d-Sf-10W-e7



- Solid-state Class AB linear design
- Extremely wide instantaneous bandwidth
- Compact and lightweight
- Built-in control, monitoring and protection circuits
- Suitable for most modulation types (contact factory for details)
- 50 ohm input/output impedance
- Highly rugged and reliable

ELECTRICAL SPECIFICATIONS @ +28 VDC, 25 °C, 50 Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	2500		6000	MHz
Power Output (CW)	P _{SAT}	10	12		Watt
Power Output @ 1 dB Gain Compression Point	P _{1dB}		8		Watt
Power Gain @ 1 dB Gain Compression Point	G _{1dB}	40			dB
Input Power for Rated Output	P _{IN}		0	5	dBm
Small Signal Gain Flatness	ΔG		±1.0	±1.5	dB
Gain Adjustment Range (Optional)	VVA		25		dB
Input Return Loss	S11			-10	dB
Noise Figure	NF			10	dB
Harmonics @ Rated P _{1dB} Gain Compression Point	H		-20	-15	dBc
Spurious Signals	Spur		-70	-60	dBc
Blanking Response Time	T _{ON/OFF}			5	μs
Gain, Amplifier Muted	G _{MUTE}			-30	dB
Operating Voltage	VDC	26	28	30	Volt
Current Consumption @ Rated P _{out} = 10 W	I _{DD}		2.7		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	6.0 X 3.0 X 1.0	Inch	Max
Weight	1.0	lb.	Max
RF Connectors In/Out	SMA female/SMA female		
DC/Control Connector	Dsub, 9-Pins, Male		
Cooling	External Heatsink		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	T _c	-20		+75	°C
Storage Temperature	T _{stg}	-40		+85	°C
Relative humidity (non-condensing)	RH			95	%
Altitude (MIL-STD-810F Method 500.4)	ALT			40,000	Feet
Shock & Vibration (MIL-STD-810F Method 516.5)	SH / VI		Airborne		

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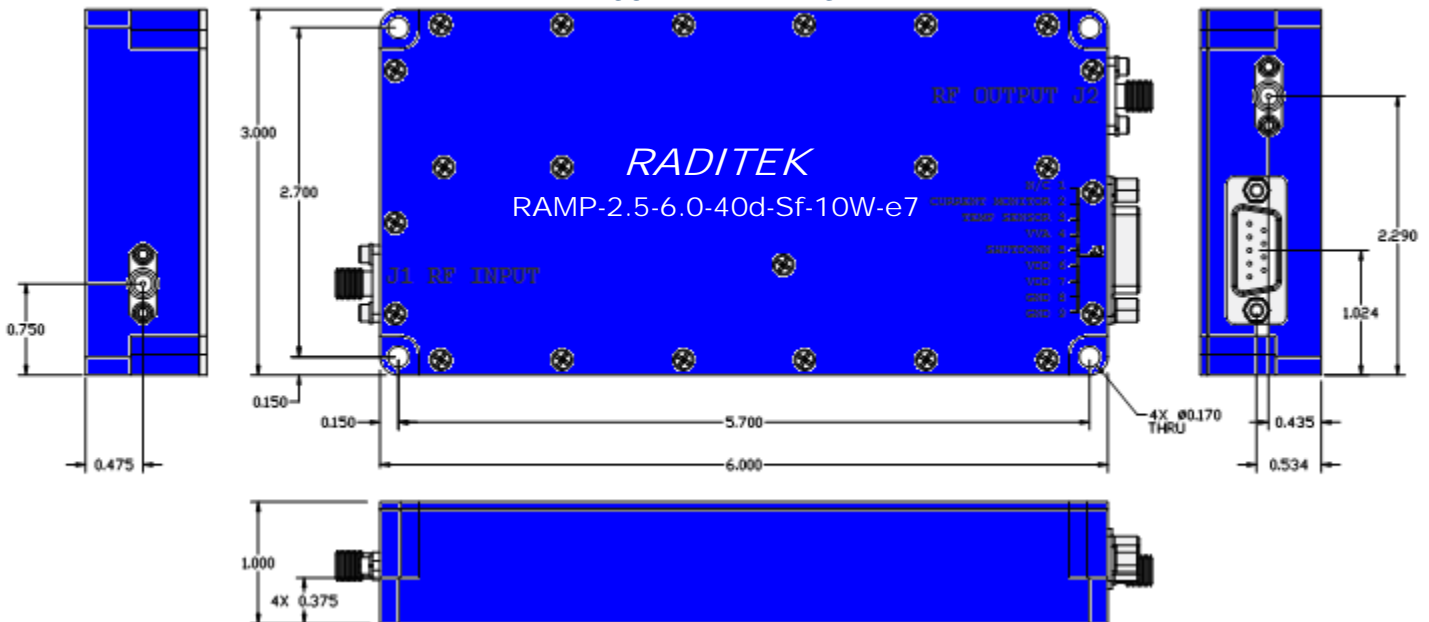
PROTECTIONS

Input Overdrive	P_{OD}	+10 dBm	Max
Load VSWR @ rated P_{out}	Ψ	∞ @ all load phase & amplitude	Nom
Thermal Overload	T_{OD}	85 °C shutdown	Max

INTERFACE CONNECTOR – 9 Pin DSUB

Pin #	Description	Specifications
1	Not Assigned	Reserved
2	Current Monitor	Analog voltage relative to current consumption @ 100 mV/100 mA
3	Temperature Sense	Analog voltage relative to case temperature @ 10 mV/°C
4	VVA (Optional)	Continuous Analog 0 – 5 VDC levels Maximum Gain: 5 VDC Minimum Gain: 0 VDC
5	Shutdown	Amplifier Enable: TTL “Low” or Open Amplifier Disable: TTL “High” (Default)
6	VDD	+28 V ±2.0 VDC
7	VDD	+28 V ±2.0 VDC
8	GND	Ground
9	GND	Ground

Adequate Heat Sink Required
OUTLINE DRAWING



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TYPICAL PERFORMANCE PLOTS

