

Laboratory Broadband High Power Amplifier AMP-4010

400 - 1000MHz / 30Watts

The amplifier AMP-4010 is suitable for broadband or high power linear applications including TV. This amplifier utilizes Silicon RF Power MOSFET devices that provide high gain, wide dynamic range, low distortions and good linearity.

- Solid-state Class AB linear design
- Instantaneous ultra broadband
- Small and lightweight
- Built-in control, monitoring & protection circuits
- Suitable for all modulation types
- 50 Ohm Input/Output impedance
- High reliability and ruggedness



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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	400		1000	MHz
Power Output CW	P _{SAT}	30	40		Watt
Output Power @ 1dB G.C.P	P _{1dB}	20	30		Watt
Power Gain @ 1dB G.C.P	G _{1dB}	44		50	dB
Input Power for Rated Pout	P _{IN}		0		dBm
Small Signal Gain Flatness	ΔG		±1.5	±2.0	dB
Gain Adjustment Range (VVA: 0 - 5VDC)	VVA	25	30		dB
Input Return Loss	S11			10	dB
Noise Figure @ minimum attenuation	NF			10	dB
Third Order Intercept Point 2-Tones @ 2W/Tone	IP3		+52		dBm
Harmonics @ P1dB G.C.P.	H		-20		dBc
Spurious Signals	Spur			-60	dBc
Operating Voltage	VDC	26	28	30	Volt
Supply Current @ 30W	IDD			6.5	Amp

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	T _c	0		+50	°C
Storage Temperature	T _{stg}	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	10,000	30,000		Feet
Shock & Vibration	SH / VI		Airborne		

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions (excluding heatsink)	6.4 x 3.4 x 1.1	Inch	Max
Weight without HS	1.0	lb.	Max
RF Connectors Input/Output	SMA female		
DC Connectors	D-Sub, 9-Pins		
Cooling	External Heatsink		

PROTECTIONS

Input Overdrive	+10dBm	Max
Load VSWR @ Pout = 30W	∞:1 @ all load phase & amplitude	Nom
Thermal Overload	85°C shutdown	Max



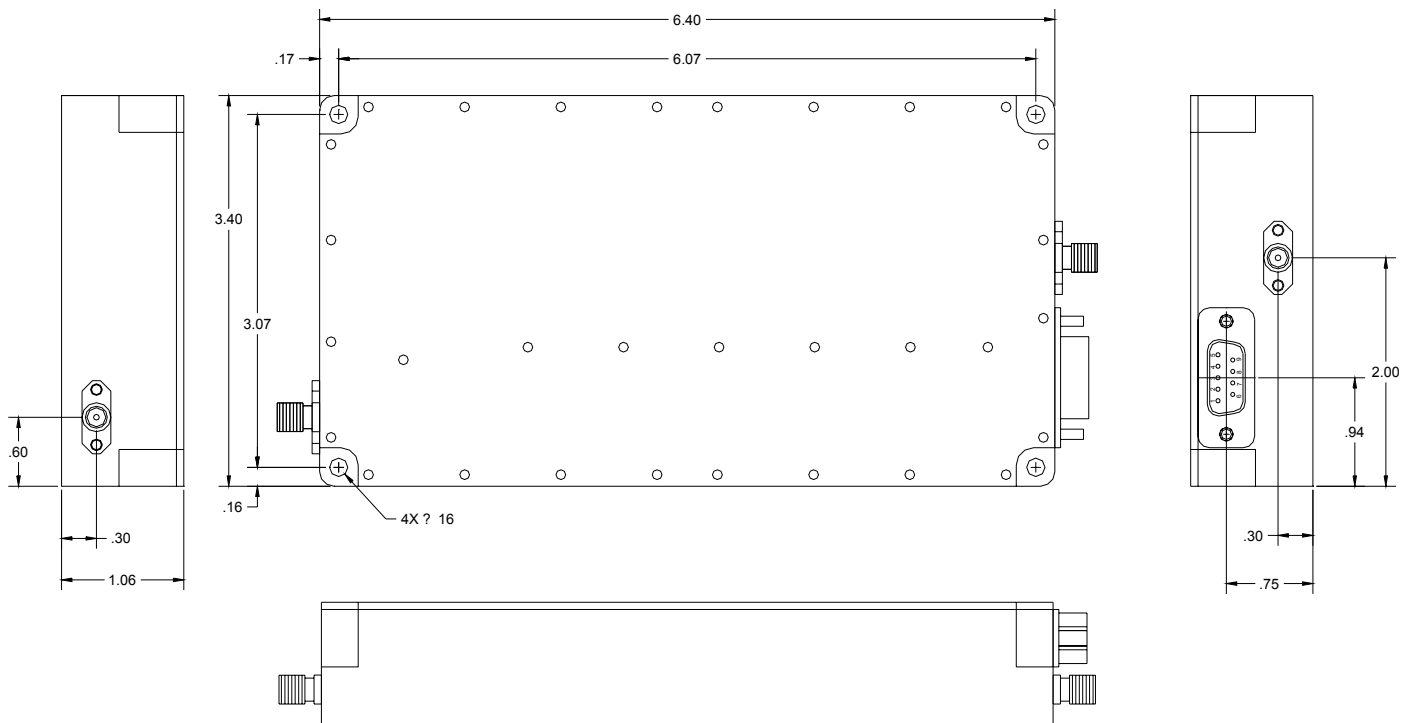
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INTERFACE CONNECTOR - D-Sub, 9-Pin

Pin #	Description	Specifications
1	N/C	
2	Current Consumption Monitor	Analog voltage relative to ID @ 50mV/100mA
3	Temperature Monitor	Analog voltage relative to Module's Temperature @ 10mV/°C
4	VVA	Max Gain = 0VDC Min Gain = 5VDC
5	Mute	Enable: TTL "Low" Disable: TTL "High"
6, 7	VDD	+28 V ± 2VDC
8, 9	GND	Ground

OUTLINE DRAWING



Features:

- Built in gain adjust VVA
- Fast switching - Mute function
- Reverse polarity protection
- Temperature protection
- Temperature indication
- Current limit protection
- Current consumption indicator