

Solid State Matched Band High Power Amplifier

5015 - MBM34367J
3.4 - 3.6GHz / 5Watts

The MBM34367J (SKU# 5015) is suitable for high power linear applications in the new WLL frequency range. This amplifier utilizes linear GaAsFET power devices that provide excellent linearity, high gain, and wide dynamic range. Exceptional performance, long term reliability, and high efficiency are achieved by employing advanced broadband matching networks and combining techniques, built-in sequence regulators, EMI/RFI filters, machined housing, and qualified components. Empower RF's ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.



- Solid-state Class A linear design
- Instantaneous broadband
- Small and lightweight
- Suitable for all modulation types
- 50 Ohm Input/Output impedance
- High reliability and ruggedness
- Built in output detector.

ELECTRICAL SPECIFICATIONS @ VDD=+12VDC, T=25°C, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency		3.4		3.6	GHz
Typical Bandwidth	BW	3.3		3.7	
Power Output CW	P _{SAT}		5		Watt
Power Output @ 1dB G.C.P	P _{1dB}	4			Watt
Power Output, Meeting ETSI Mask (16-QAM)	P _{QAM}	29	33		dBm
Input Power for nominal Pout	P _{IN}		-4		dBm
Small Signal Gain	SSG	40			dB
Small Signal Gain Flatness	ΔG			±1	dB
Gain Changes with Temperature	ΔG _T			±1	dB
Return Loss Input/Output	S11			-10	dB
Third Order Intercept Point 2-Tones, Pout = 0.5W Avg., Δ = 100KHz	IP3		+49		dBm
Harmonics @ 1dB G.C.P	H			-30	dBc
Noise Figure	NF		7	10	dB
RF Input Overdrive	OD			+10	dBm
Load VSWR @ 4W	Ψ			Infinite	-
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	VDC	11	12	15	Volt
Current Consumption	I _{DD}			2	Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	3.9 x 3.0 x 0.8	Inch	Max
Weight	0.5	lb.	Max
RF Connectors In/Out	SMA female		
DC Connectors	DB9		
Power Monitor 0 to +5VDC, 1kΩ load			
Cooling	External Heatsink		

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

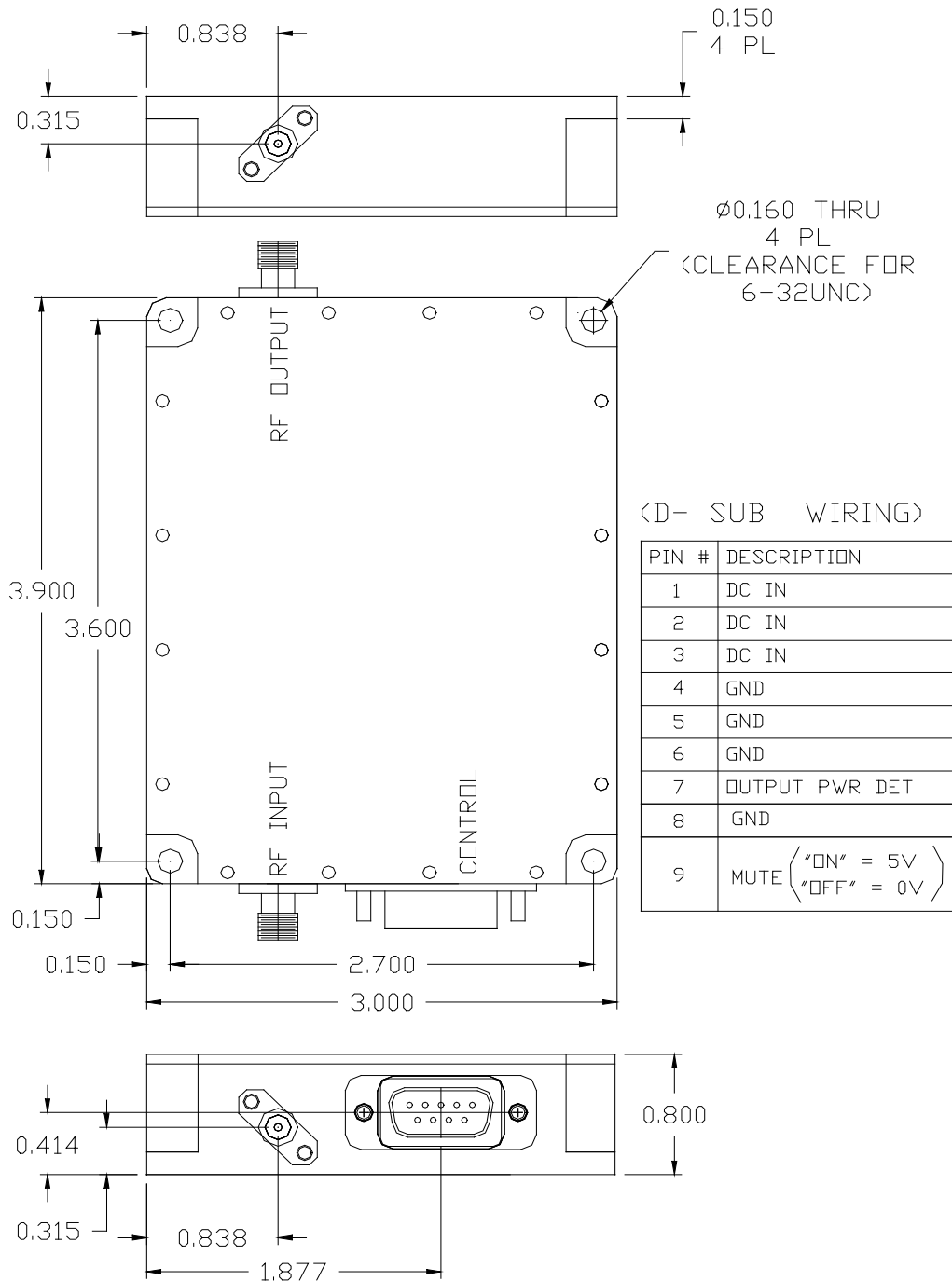
Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	T _c	-35		+70	°C
Storage Temperature	T _{stg}	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	13,000	30,000		Feet
Shock / Vibration	SH / VI		Airborne		

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OUTLINE DRAWING



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TYPICAL PERFORMANCE PLOTS

