

# M1822GP30 1.8-2.2G 30W

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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	1800		2200	MHz
Power Output CW	P <sub>SAT</sub>	30			Watt
Power Output @ 1dB Gain Compression	P <sub>1dB</sub>	25			Watt
Power Gain @ 1dB Gain Compression	G <sub>1dB</sub>	44		47	dB
ALC Level (external analog control voltage)	ALC	27	40		dBm
Small Signal Gain Flatness	ΔG		±0.75	±1.0	dB
Input Power @ Rated P <sub>SAT</sub> (ALC ON)	P <sub>IN</sub>		+5		dBm
Input / Output Return Loss	S <sub>11</sub> / S <sub>22</sub>			-10	dB
Noise Figure (at minimum attenuation)	NF		7	10	dB
Third Order Intercept Point 2-Tone @ 36dBm/Tone, 100kHz Spacing	IP3		+51		dBm
Harmonics @ P <sub>OUT</sub> = 30W	H			-30	dBc
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	V <sub>DC</sub>	24	28	30	Volt
Current Consumption @ P <sub>OUT</sub> = 30W	I <sub>DD</sub>			7.0	Amp

## ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit	Limits
Operating Case Temperature	T <sub>c</sub>	0		+75	°C	
Storage Temperature	T <sub>stg</sub>	-40		+85	°C	
Relative humidity (non-condensing)	RH			95	%	
Altitude (MIL-STD-810F Method 500.4)	ALT			30,000	Feet	
Vibration/Shock MIL-STD-810F - Method 514.5/516.5 – Proc I	VI/SH		Airborne			

## LIMITS

Parameter	Value	Limits
Input RF drive level without damage	+7 dBm	Max
Load VSWR – Built-in Isolator	5:1 @ all load phase & amplitude	
Thermal Overload	85°C shutdown	Max

## MECHANICAL SPECIFICATIONS

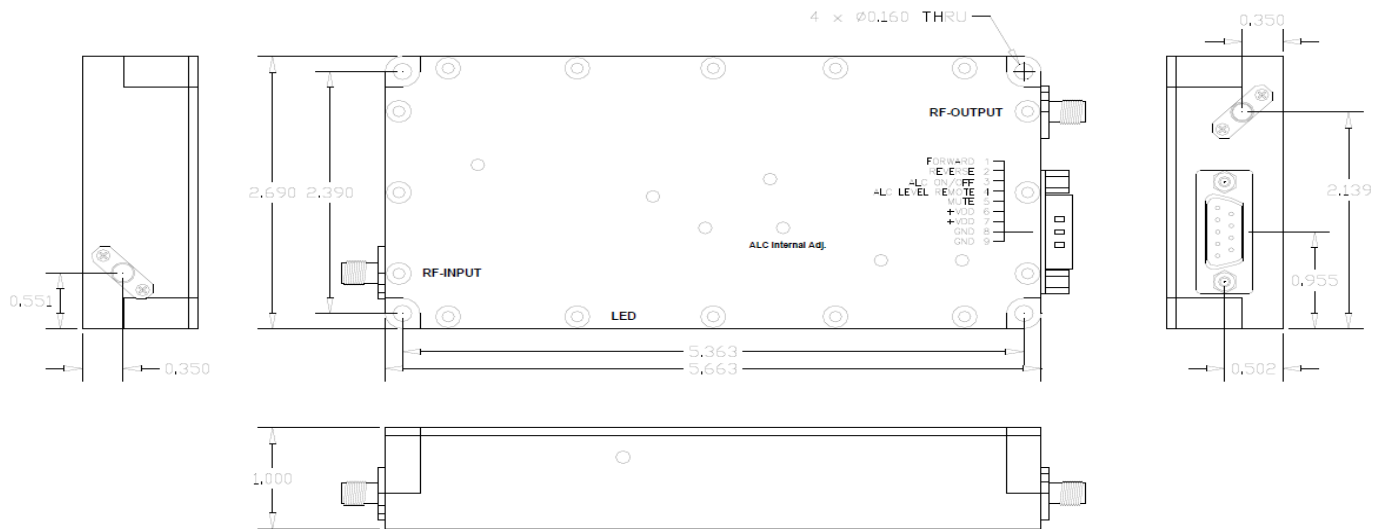
Parameter	Value	Units	Limits
Dimensions	5.7 x 2.7 x 1.0	Inch	Max
Weight	1.0	lb	Max
RF Connectors In/Out	Type-SMA, Female		
DC Interface Connector	D-SUB 9Pin Male		
Cooling	External Heatsink (Not Supplied)		

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## DC CONNECTOR- D-Sub, 9Pin,

Pin #	Description	Specifications
1	Forward Power Monitor	Continuous Analog voltage 0-5V <sub>DC</sub> relative to forward power level
2	Reverse Power Monitor	Continuous Analog voltage 0-5V <sub>DC</sub> relative to forward power level
3	ALC ON/OFF	ALC OFF = TTL Logic High (5V), ( <i>Internally Pulled-Low</i> )
4	ALC Level	Continuous 32 – 45dBm adjustable range via 0-5 VDC Analog levels Maximum Gain: 5V <sub>DC</sub> , Minimum Gain: 0V <sub>DC</sub>
5	Mute	Amplifier Disable: TTL Logic High (5V) ( <i>Internally Pulled-Low</i> )
6,7	+VDD	24.0 – 30.0V <sub>DC</sub>
8,9	GND	Ground
LED	LED Indicator	Output Power level indicator referenced to ALC setting

## Outline Drawing



## PERFORMANCE PLOTS

