

# M1822GP30 (1800~2200MHz, 30W)

## ELECTRICAL SPECIFICATIONS @ +28.0 VDC, 25°C, 50 Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	1800		2200	MHz
Output Power CW	P <sub>SAT</sub>	30	35		Watt
Output Power @ 1dB Gain Compression	P <sub>1dB</sub>	25			Watt
Power Gain 1dB Gain Compression	G <sub>1dB</sub>	46			dB
Input Power for Rated P <sub>SAT</sub>	P <sub>IN</sub>		0		Watt
Gain Flatness	ΔG			±1.5	dB
Input/Output Return Loss	S <sub>11</sub> / S <sub>22</sub>			-10	dB
Noise Figure	NF		7	10	dB
Harmonics @ P <sub>OUT</sub> = 25W	H		-40		dBc
Third Order Intercept Point 2-Tone @ 34dBm/Tone, 100kHz Spacing	IP3		+54		dBm
Spurious Signals	Spur			-60	dBc
Operating Voltage	V <sub>DC</sub>	26	28	30	Volt
Gate switch time	I <sub>DD</sub>			4.0	Amp

## MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	6.4 x 3.4 x 1.0	Inch	Max
Weight	1.0	lb.	Max
RF Connectors Input / Output	Type-SMA, Female		
DC Interface Connector	D-Sub 9-Pin, Male		
Cooling	External Heatsink (not supplied)		

## ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	T <sub>c</sub>	0		+5	°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	+6dBm	Max
Load VSWR @ P <sub>OUT</sub> = 300W	∞ @ all phase & amplitude for duration of 1 minute 3:1 @all load phase & amplitude continuous	-
Thermal Overload	85°C shutdown	Max

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## INTERFACE CONNECTOR - D-Sub 9-Pin, Male

Pin #	Description	Specifications
1	Forward	Continuous Analog voltage 0-5VDC relative to forward power level
2	Reverse	Continuous Analog voltage 0-5VDC relative to reflected power level
3	ALC ON/OFF	ALC OFF = TTL Logic High (5V) (Internally Pulled-low)
4	ALC Level	Continuous 27 – 45 dBm adjustable range via 0 – 5 VDC Analog levels Maximum Gain: 5VDC, Minimum Gain: 0VDC
5	Mute	Amplifier Disable : TTL Logic High (5V) (Internally Pulled-Low)
6&7	VDD	+28.0VDC $\pm$ 2V
8&9	GND	Ground

  

<b>LED</b>	LED Indicator	Output Power level indicator referenced to ALC setting
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## OUTLINE DRAWING

