

M1822GP80 1.8-2.2G 80W

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 _{SAT}	100			Watt
Power Output @ 1dB G.C.P	P _{1dB}	60	80		Watt
Power Gain 1dB G.C.P	G _{1dB}	48			dB
Input Power for Rated Output	P _{IN}		0		Watt
Gain Flatness	ΔG			±1.5	dB
Input/Output VSWR	S ₁₁ /S ₂₂			2:1	-
Noise Figure	NF		7	10	dB
Harmonics @ 1dB G.C.P	H		-55	-45	dBc
Third Order Intercept Point 2-Tone IMD @ 37dBm per tone, Δ = 100KHz	IP3		+57		dBm
Spurious Signals	Spur			-60	dBc
Operating Voltage	V _{DC}	26	28	30	Volt
Supply Current @ Pout = 80W	I _b			8.5	Amp
Efficiency	Eff		30		Percent

ENVIRONMENTAL CHARACTERISTICS

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

LIMITS

Parameter	Value	Limits
Thermal Overload	85°C shutdown	Max
Input Overdrive	+6dBm	Max
Load VSWR @ Pout = 60W	Infinite @ all load phase & amplitude (Output Circulator)	Nom

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions (excluding heatsink)	6.4 x 3.4 x 1.0	Inch	Max
Weight without HS	1.0	lb.	Max
RF Connectors In/Out	SMA female		
DC/ Control Connector	D-Sub, 9-pins		
Cooling	External Heat-sink		

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DC CONNECTOR- D-Sub, 9Pin, Male

Pin #	Description	Specifications
1	Forward Power	Continuous Analog voltage relative to forward power via Peak detector Minimum power 0VDC Maximum power: 5VDC
2	Temp Mon	Analog voltage relative to Module's Temperature @ 0.5V +10mV/°C (Voltage offset to enable negative temperatures to be monitored) Available in Operational or Standby modes
3	ALC ON/OFF	ALC ON = TTL "Low" ALC OFF = TTL "High"
4	ALC Level	Continuous 30 - 48dBm adjustable range via 0 - 5VDC Analog levels Maximum Gain: 5VDC Minimum Gain: 0VDC
5	Mute	Enable: TTL "Low" or Open Disable: TTL "High"
6	+VDD	+28 ± 2VDC
7	+VDD	+28 ± 2VDC
8	GND	Ground
9	GND	Ground
LED	LED Indicator	Output Power level indicator referenced to ALC setting

Outline Drawing TBD

