

M1820GP120 1.8-2GHz 120W

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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	1800		2000	MHz
Power Output CW	P _{SAT}	120			Watt
Output Power @ 1dB G.C.P	P _{1dB}	60	80		Watt
Power Gain @ 1dB G.C.P	G _{1dB}	49			dB
Input Power for Rated Pout	P _{IN}		0		dBm
Small Signal Gain Flatness	ΔG		±0.75	±1.0	dB
Input/Output Return Loss	S ₁₁ /S ₂₂			-14	dB
Third Order Intercept Point 2-Tones, Pout = +37dBm/Tone, Δ = 100KHz	IP3		+57		dBm
Harmonics @ 50W	H			-40	dBc
Noise Figure	NF			10	dB
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	V _{DC}	26	28	30	Volt
Supply Current @ 120W	I _{DD}			15	Amp

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 w/o condensation	RH	95			%	
Altitude	ALT	10,000	30,000		Feet	
Shock & Vibration	SH / VI		Airborne			

LIMITS

Parameter	Value	Limits
Input Overdrive	+6dBm	Max
Load VSWR @ 50W	Infinite @ all load phase & amplitude	Nom
Thermal Overload	85 °C shutdown	Max

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 In/Out	SMA female		
DC and Alarms / Interface	D-sub, 9 Pins		
Cooling	External Heatsink		

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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	Reverse Power	Continuous Analog voltage relative to reflected power via Peak detector Minimum power : 0VDC Maximum power : 5VDC (10dB minimum Directivity)
3	ALC ON/OFF	N/C
4	ALC Level	N/C
5	Mute	Enable: TTL "Low" Disable: TTL "High"
6	+VDD	+28 ± 2VDC
7	+VDD	+28 ± 2VDC
8	GND	Ground
9	GND	Ground

Outline Drawing

