



MODEL MM20180P37D
2000~18000MHz
5 Watt
WIDE BAND POWER RF AMPLIFIER

Advantages:

- Operating Frequency :2000~18000MHz
- Power Gain: 37dB Typical
- Psat: 5W Typical
- Supply Voltage:+28V
- 50 Ohms Input and Output Matched

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	2		18	GHz
RF Output Power @Pin=0dBm	P _{SAT}		5		Watt
Power Gain	G _p		37		dB
Power Gain Flatness	Δ G _p		±2		dB
Input Return Loss	S ₁₁			-10	dB
2 nd Harmonics @2W	H		-12		dBc
Spurious Signals	Spur		-55		dBc
Switching On/Off@10-90% Time,1kHz	T _{ON} /O _{FF}		10		μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	26	28	30	Volt
DC Current @5W	I _{DD}		2		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	80x80x22 [3.2x3.2x0.8]	mm [inch]	Maximum
Weight	1.2[2.64]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	D-Sub 9-Pin, Male		
Cooling	External Heatsink Required(Not Supplied)		

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		60	°C	
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+5 dBm (Max)
Load VSWR @ P _{OUT} =2W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous.
Over Temperature	85°C @ heatsink [restored @ 60°C]



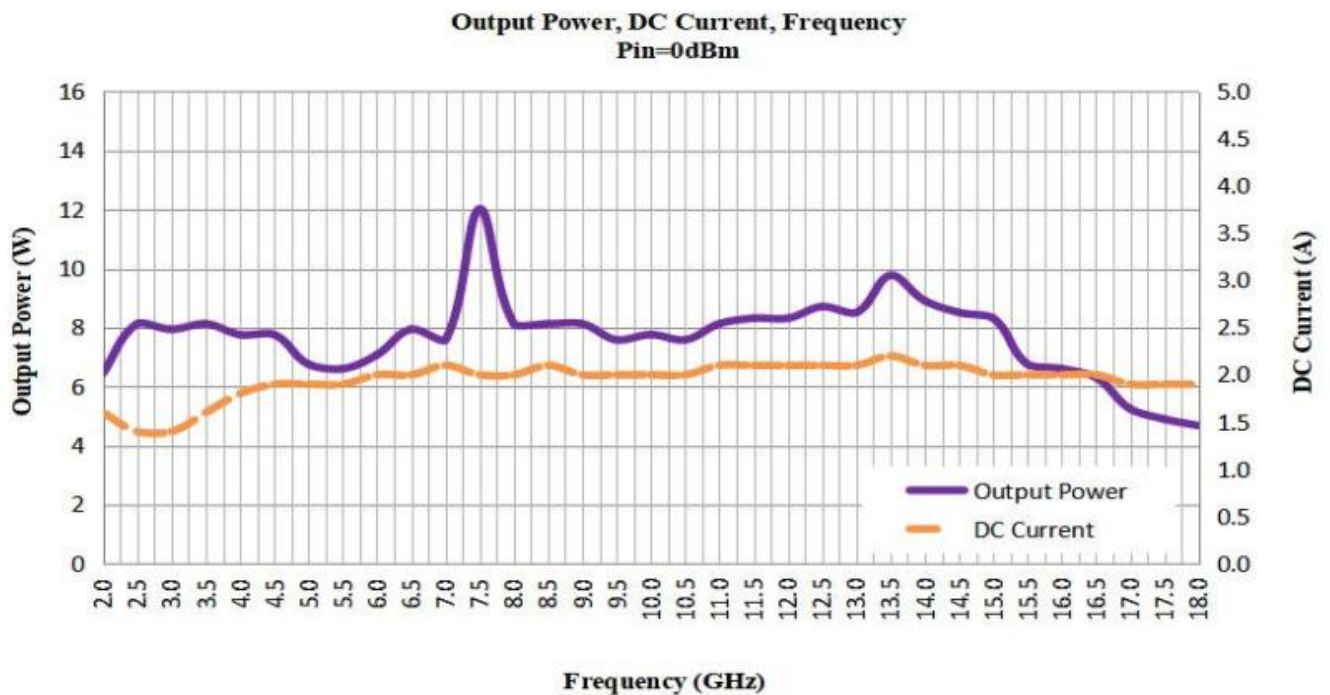
POWER INTERFACE CONNECTOR

Male D-Sub is on the housing

Pin #	Name	Specifications
1	VDD	+28.0V _{DC}
2	VDD	+28.0V _{DC}
3	VDD	+28.0V _{DC}
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	CURRENT SENSE	Analog voltage relative to I _{DD} @ 100mV per Ampere
8	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
9	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)

TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp. +25±3°C)



Note: Adequate heatsink required.