

**MODEL MM0727P50A**  
**0.7~2.7GHz**  
**100 WATTS**  
**WIDE BAND POWER RF AMPLIFIER**

**Advantages:**

- Operating Frequency :0.7~2.7GHz
- Power Gain:50dB Typical
- Psat:100W 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	0.7		2.7	GHz
RF Output Power @Pin=0dBm	P <sub>SAT</sub>		100		Watt
Power Gain	G <sub>p</sub>		50		dB
Power Gain Flatness	Δ G <sub>p</sub>		±2.5		dB
Input Return Loss	S <sub>11</sub>			-10	dB
Harmonics @60W	H		-10	-8	dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time ,1kHz	T <sub>ON/OFF</sub>		2	5	μs
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V <sub>DC</sub>	24	28	32	Volt
DC Current @80W	I <sub>DD</sub>		13		Amp

**MECHANICAL SPECIFICATIONS**

Parameter	Value	Units	Notes
Dimensions	180x90x25[7.08x3.54x0.98]	mm [inch]	Maximum
Weight	1.2 [2.65]	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	+10 dBm (Max)
Load VSWR @ P <sub>OUT</sub> =80W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous.
Over Temperature	85°C @ heatsink [restored @ 60°C]

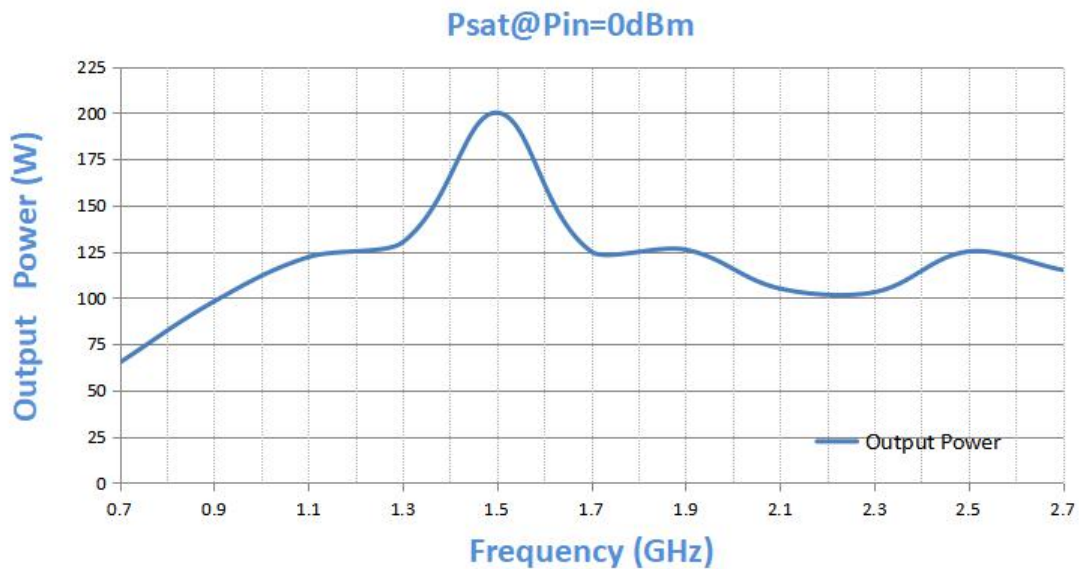
**POWER INTERFACE CONNECTOR**

Male D-Sub is on the housing

Pin #	Name	Specifications
1	VDD	28VDC
2	VDD	28VDC
3	VDD	28VDC
4	ENABLE	Amplifier Enable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
5	CURRENT SENSE	Analog voltage relative to IDD @ 50mV per Ampere
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C

**TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)**

Output Power (Normal temp. +25±3 °C)



**Note:** Adequate heatsink required.