



**MODEL MM0830P47C**  
**0.8~3.0GHz**  
**50 WATTS**  
**WIDE BAND POWER RF AMPLIFIER**

**Advantages:**

- Operating Frequency :0.8~3.0GHz
- Power Gain:47dB Typical
- Psat:50W Typical
- Supply Voltage:+28V
- 50 Ohms Input and Output Matched

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	0.8		3.0	GHz
RF Output Power @Pin=0dBm	P <sub>SAT</sub>		50		Watt
Power Gain	G <sub>p</sub>		47		dB
Power Gain Flatness	Δ G <sub>p</sub>		±1.5		dB
Input Return Loss	S <sub>11</sub>			-10	dB
Noise Figure @ Max Gain	NF		11		dB
Third Order Intercept Point2-Tone @ 41dBm/Tone, 1MHz Spacing	IP3		+50		dBm
Harmonics @20W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time ,1kHz	Ton/off		2	5	μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V <sub>DC</sub>	24	28	32	Volt
Current Consumption @ Shutdown	I <sub>SD</sub>			0.3	Amp
DC Current @Pout=40W	I <sub>DD</sub>		6		Amp

**MECHANICAL SPECIFICATIONS**

Parameter	Value	Units	Notes
Dimensions	162.56x86.36x25 [6.4 x 3.4 x 0.98]	mm [inch]	Maximum
Weight	1.0 [2.2]	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 @ POUT =40W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous.
Over Temperature	85°C Graceful Degradation

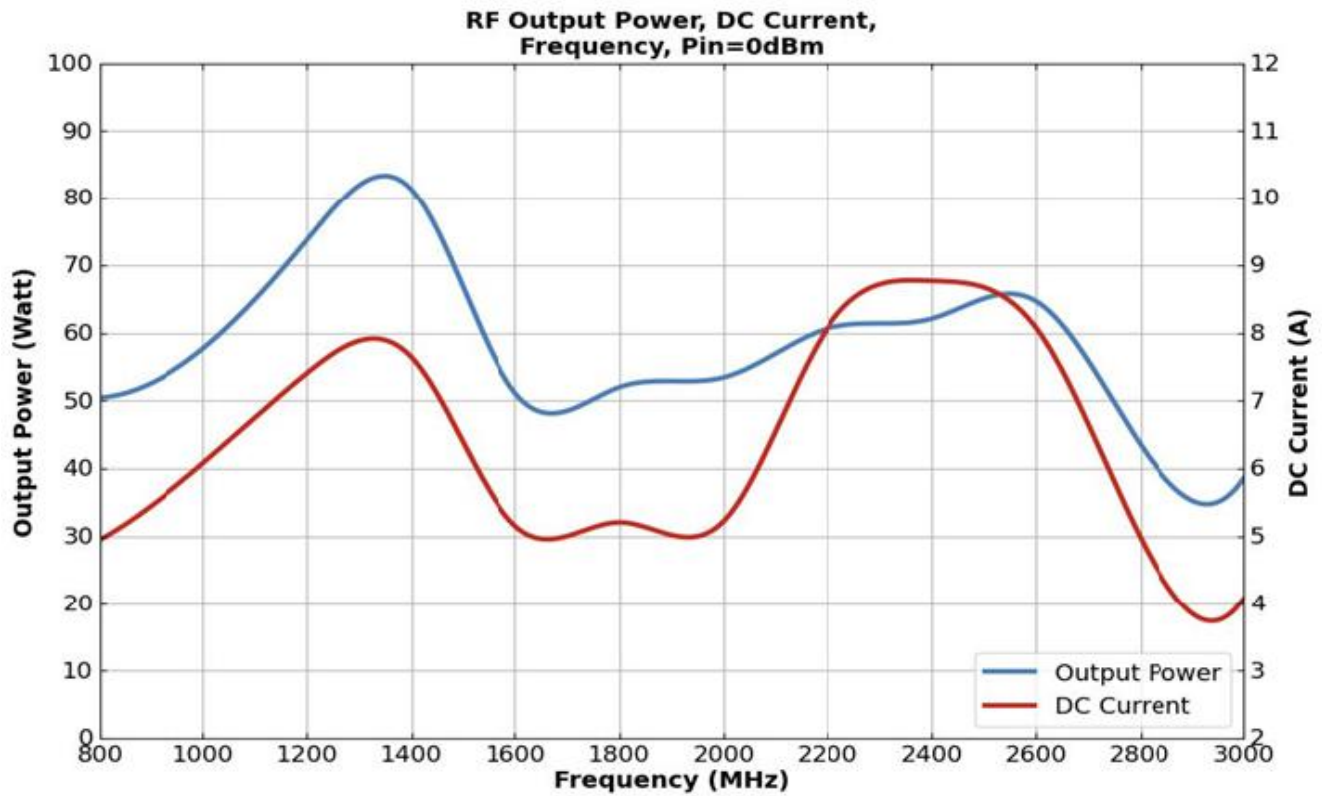
**POWER INTERFACE CONNECTOR**

Male D-Sub is on the housing

Pin #	Description	Specifications
1	RESERVED	No electrical connection
2	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
3	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
4	RESERVED	No electrical connection
5	SHUTDOWN	Amplifier Disable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
6	VDD	28V
7	VDD	28V
8	GND	Ground
9	GND	Ground

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

Output Power (Normal temp. +25±3°C)



**Note:** Adequate heatsink required.