

MODEL MM2225P53A
2.2~2.5GHz
200 WATTS
NARROW BAND POWER RF AMPLIFIER

Advantages:

- Operating Frequency :2.2~2.5GHz
- Power Gain:28dB Typical
- P_{sat}:200W 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	2.2		2.5	GHz
RF Output Power @Pin=25dBm	P _{SAT}	150	200		Watt
Power Gain	G _p		28		dB
Power Gain Flatness	Δ G _p		±1.5		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @150W	H		-15		dBc
Spurious Signals	Spur		-55		dBc
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	26	28	30	Volt
DC Current @200W	I _{DD}		24		Amp
Switch On/Off@10-90% Time ,1kHz	T _{ON/OFF}		5		μs

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	170x130x30 [6.69x5.12x1.18]	mm [inch]	Maximum
Weight	2.0[4.4]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	N, Female		
DC Interface Connector	Hybrid, D-Sub 7-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	+27 dBm (Max)
Load VSWR @ P _{OUT} =100W	∞ @ 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

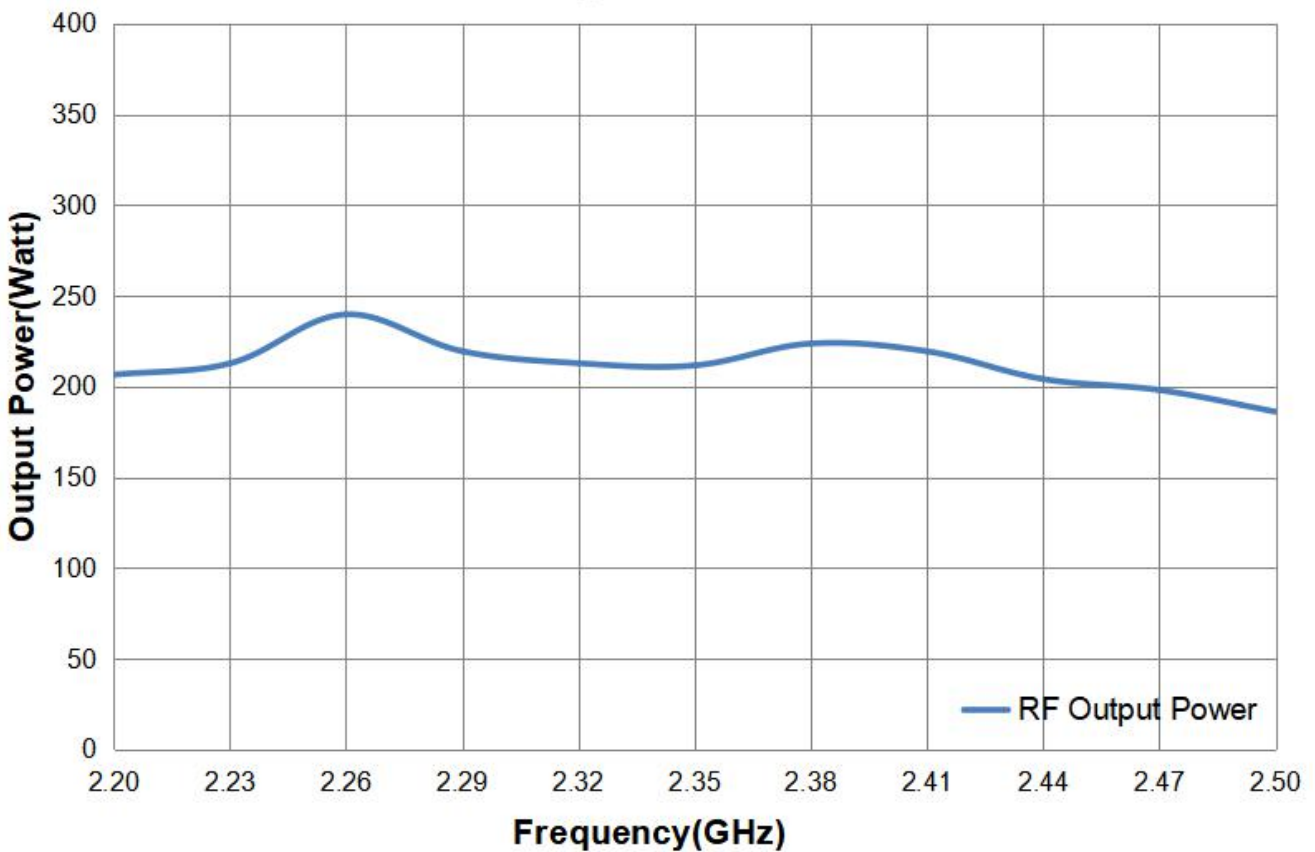
Male D-Sub is on the housing

Pin #	Name	Specifications
A1	VDD	28VDC
A2	GND	Ground
1	SHUT DOWN	Amplifier Disable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
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	FORWARD SENSE	Analog voltage relative to forward power level
5	REVERSE SENSE	Analog voltage relative to reflected power level

TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp.+25±3 °C)

Psat@Pin=25dBm



Note: Adequate heatsink required.