MODEL MM1020P53A
1～2GHz
200 WATTS
WIDE BAND POWER RF AMPLIFIER

Advantages:

- Operating Frequency :1～2GHz
- Power Gain:53dB Typical
- Psat: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	1		2	GHz
RF Output Power @Pin=0dBm	P_{SAT}		200		Watt
Power Gain	G_p		53		dB
Power Gain Flatness	ΔG_p		±1.5		dB
Input Return Loss	S_{11}			-10	dB
Harmonics @150W	H		-20		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time ,1kHz	$T_{ON/OFF}$		2	4	μs
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V_{DC}	24	28	32	Volt
DC Current @200W	I_{DD}		20		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	200x150x25 [7.87x5.9x0.98]	mm [inch]	Maximum
Weight	1.95[4.30]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	N-Type, 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	℃	
Non-operating Temperature	-45		85	℃	Storage
Relative Humidity (non-condensing)			95	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+10 dBm (Max)
Load VSWR @ P_{OUT} =150W	∞@ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous.
Over Temperature	85°C @ heatsink [restored @ 60°C]

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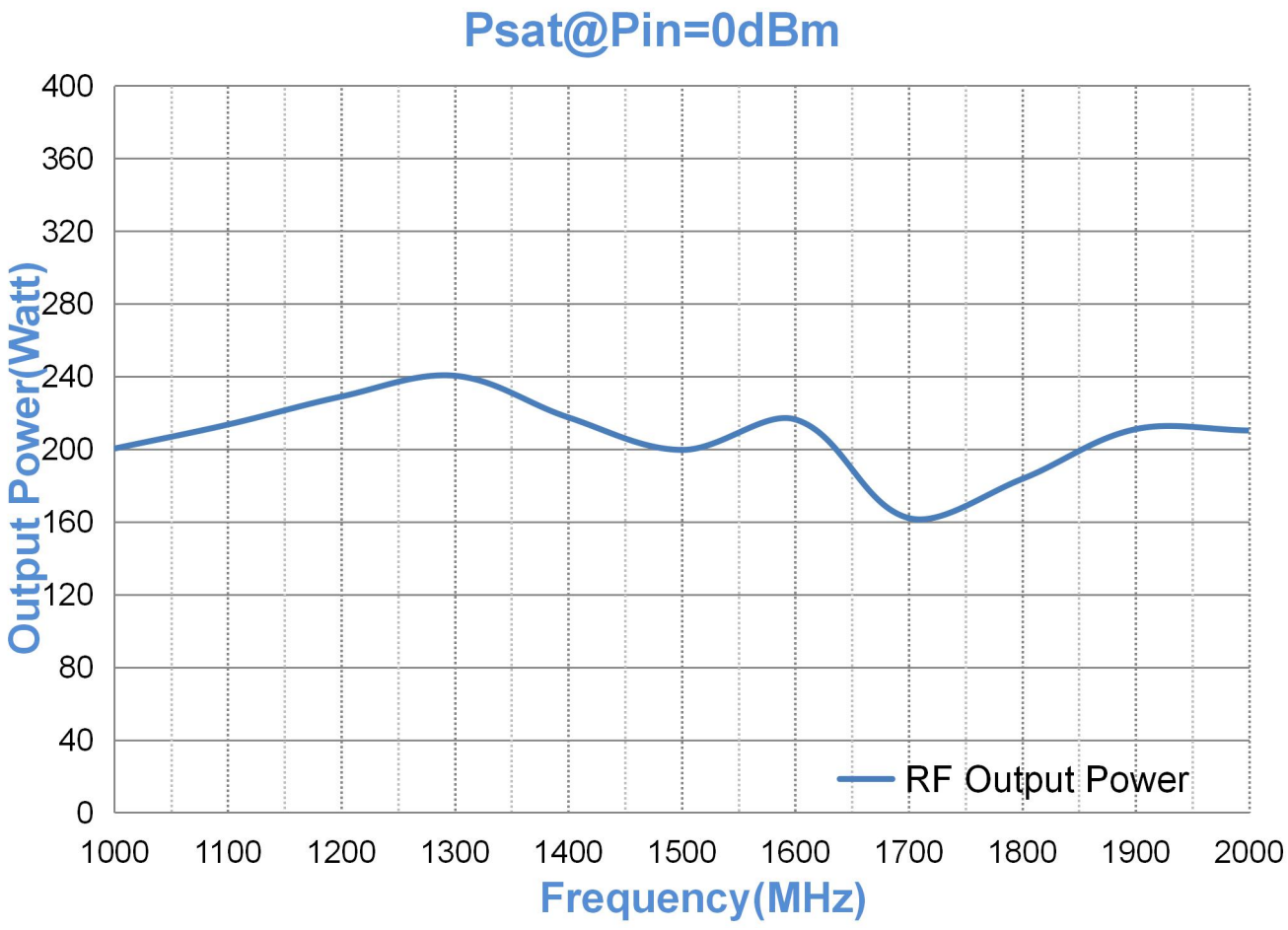
POWER INTERFACE CONNECTOR

Male D-Sub is on the housing

Pin #	Name	Specifications
A1	VDD	28VDC
A2	GND	Ground
1	ENABLE	Amplifier Enable: 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	NC	No electrical connection
5	GND	Ground

TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp.+25±3℃)



Note: Adequate heatsink required.