

MODEL MM0520P43A
0.5 ~ 2.0GHz
20 WATTS
WIDE BAND POWER RF AMPLIFIER

Advantages:

- Operating Frequency :0.5~2.0GHz
- Power Gain:43dB Typical
- Psat:20W 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	0.5		2.0	GHz
RF Output Power @Pin=0dBm	P _{SAT}		20		Watt
Power Gain	G _P		43		dB
Power Gain Flatness	ΔG _P		±2		dB
Harmonics @POUT = 10W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Input Return Loss	S ₁₁			-10	dB
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	24	28	32	Volt
Current Consumption @ POUT = 20W	I _{DD}		4		Amp
Current Consumption @ Shutdown	I _{SD}		0.1		Amp
Switch On/Off@10-90% Time ,1kHz	T _{ON/OFF}			2	μS
RF Input to Output Isolation (During OFF State)	Isolation		85		dBc

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	140x85x25 [5.51x3.35x0.98]	mm [inch]	Maximum
Weight	0.65 [1.4]	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 =10W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous.
Over Temperature	85°C @ heatsink [restored @ 60°C]

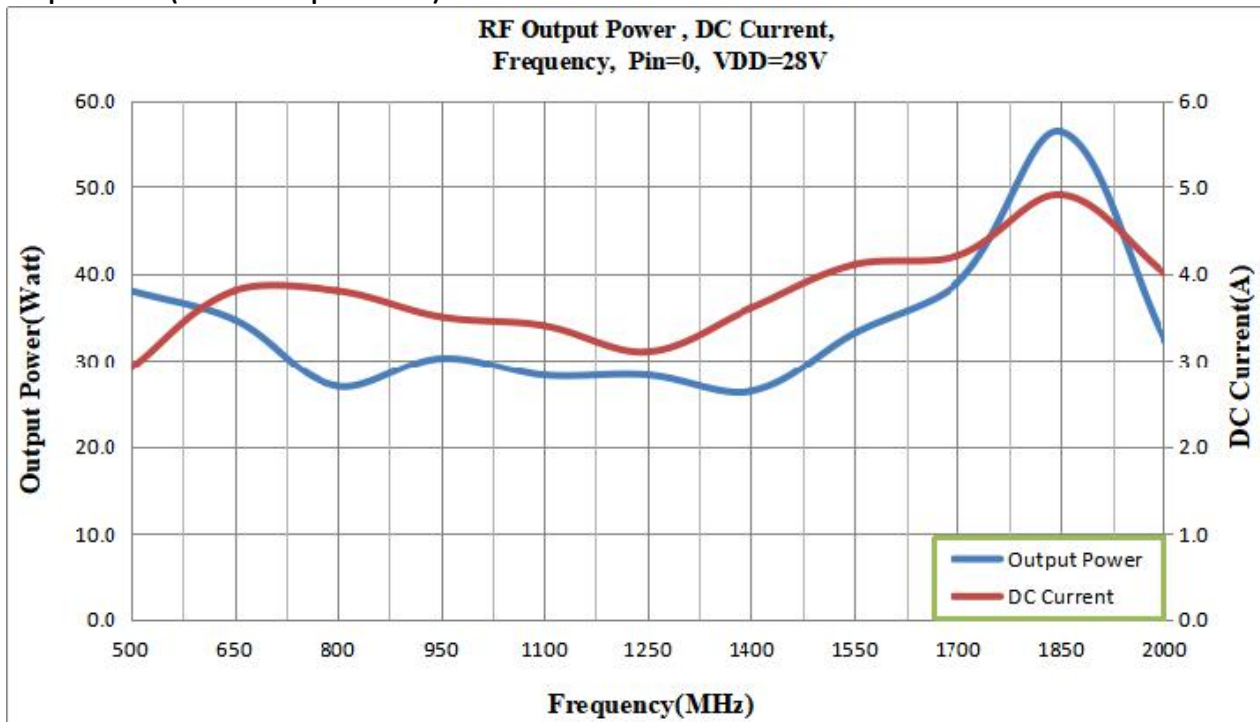
POWER INTERFACE CONNECTOR

Male D-Sub is on the housing

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

TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp. +25±3°C)



Note: Adequate heatsink required.