

MODEL MM1017P43A
1~1.7GHz
20 WATTS
WIDE BAND POWER RF AMPLIFIER

Advantages:

- Operating Frequency :1~1.7GHz
- Power Gain:44dB Typical
- Psat:20W Min
- 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		1.7	GHz
RF Output Power @Pin=0dBm	P _{SAT}	20			Watt
Power Gain	G _p		44		dB
Power Gain Flatness	Δ G _p		±2.5		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @10W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time ,1kHz	T _{ON/OFF}			2	μs
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	24	28	32	Volt
DC Current @20W	I _{DD}		4		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	140×85×20.5 [5.51×3.35×0.81]	mm [inch]	Maximum
Weight	0.5 [1.1]	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		70	°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 _{OUT} =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]

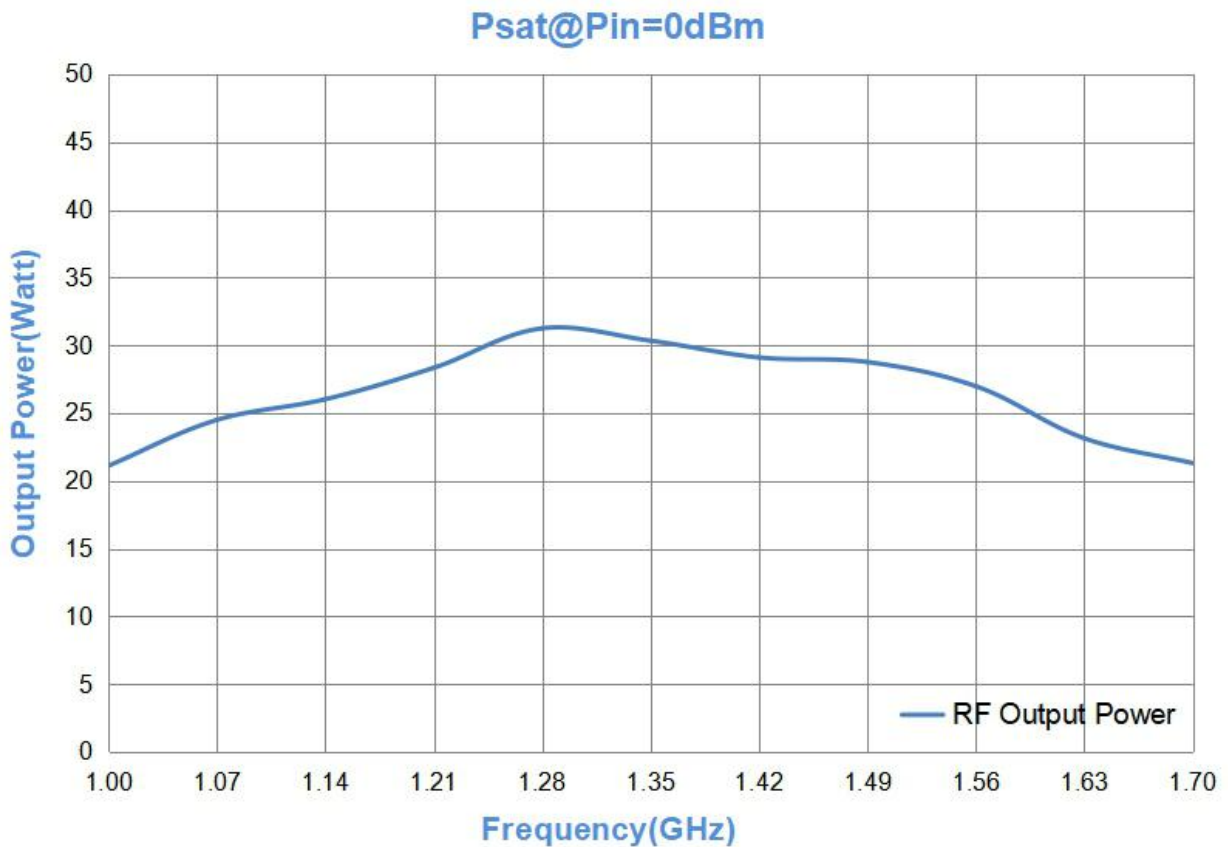
POWER INTERFACE CONNECTOR

Male D-Sub is on the housing

Pin #	Name	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	28 VDC
7	VDD	28 VDC
8	GND	Ground
9	GND	Ground

TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp. +25±3 °C)



Note: Adequate heatsink required.