



MODEL MM180400P43B
18~40GHz
20 WATTS
WIDE BAND POWER RF AMPLIFIER

Advantages:

- Operating Frequency: 18~40GHz
- Power Gain: 43dB Typical
- Psat: 20W Typical
- Supply Voltage: +18V
- 50 Ohms Input and Output Matched

ELECTRICAL SPECIFICATIONS @ +18VDC, 25°C, 50Ω

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	18		40	GHz
RF Output Power @Pin=0dBm	P _{SAT}		20		Watt
Power Gain	G _p		43		dB
Power Gain Flatness	Δ G _p			±2	dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @P _{SAT}	H		-15		dBc
Spurious Signals	Spur			-60	dBc
Switch On/Off@10-90% Time,1kHz	T _{ON/OFF}		2	5	μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	17	18	19	Volt
DC Current @20W	I _{DD}		30		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	160x120x45 [6.3x4.72x1.77]	mm [inch]	Maximum
Weight	1.5 [3.31]	kg [lbs]	Maximum
RF Connectors Input	2.92mm, Female		
RF Connectors Output	2.92mm, Female(or WRD180)		
DC Interface Connector	J29A-25ZKP		
Cooling	External Heat sink 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	+5 dBm (Max)
Load VSWR @ POUT =20W	3:1 @ all load phase & amplitude continuous More than 4:1 may cause PA damage
Over Temperature	85°C @ heatsink [restored @ 60°C]



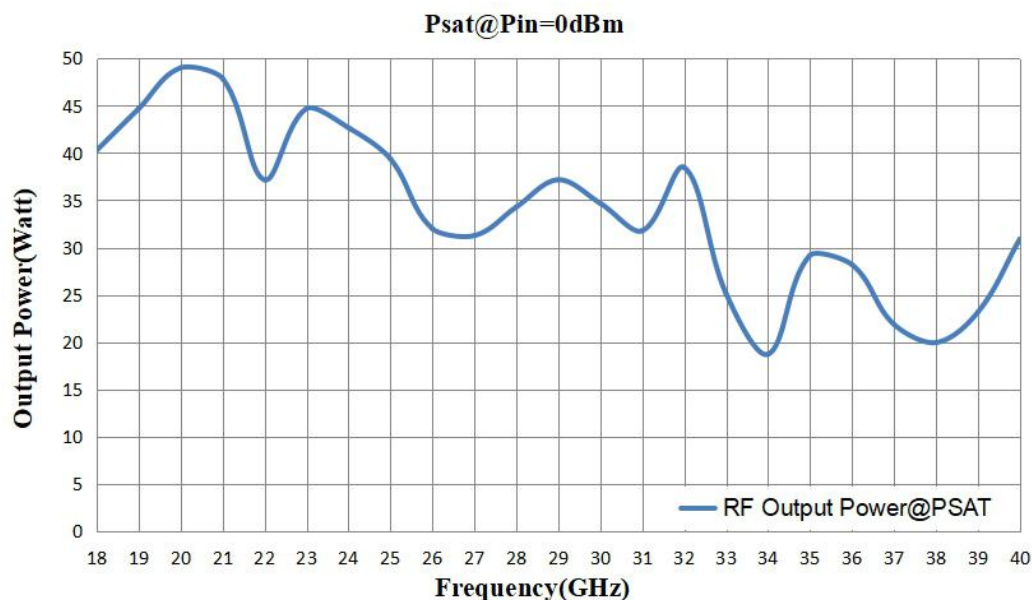
POWER INTERFACE CONNECTOR

Male D-Sub is on the housing

Pin #	Description	Specifications
1-9	VDD	+18VDC
10-19	GND	Ground
20	ENABLE	Amplifier Enable:TTL Logic High (3.3V~5V)
21	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
22	TEMP ALARM	Amplifier alarm indicator: Normally TTL Low
23	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
24	CURRENT ALARM	Amplifier alarm indicator: Normally TTL Low
25	GND	Ground

TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp. +25±3°C)



Note: Adequate heatsink required.