



**MODEL MM60180P45B**  
**6~18GHz**  
**30 WATTS**  
**WIDE BAND POWER RF AMPLIFIER**

**Advantages:**

- Operating Frequency :6~18GHz
- Power Gain:45dB Typical
- Psat:30W 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	6		18	GHz
RF Output Power @Pin=0dBm	P <sub>SAT</sub>		30		Watt
Power Gain	G <sub>p</sub>		45		dB
Power Gain Flatness	Δ G <sub>p</sub>		±2		dB
Input Return Loss	S <sub>11</sub>		-10		dB
Harmonics @20W	H		-13		dBc
Spurious Signals	Spur		-60		dBc
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V <sub>DC</sub>	26	28	30	Volt
DC Current @30W	I <sub>DD</sub>		9		Amp
Switch On/Off@10-90% Time ,1kHz	T <sub>ON/OFF</sub>		1		μs

**MECHANICAL SPECIFICATIONS**

Parameter	Value	Units	Notes
Dimensions	150x90x30[5.91x3.54x1.18]	mm [inch]	Maximum
Weight	0.8[1.76]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	J29A-15ZK		
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	+5 dBm (Max)
Load VSWR @ P <sub>OUT</sub> =20W	3:1 @ all load phase & amplitude continuous More than 4:1 may cause PA damage
Over Temperature	85°C @ heatsink [restored @ 60°C]

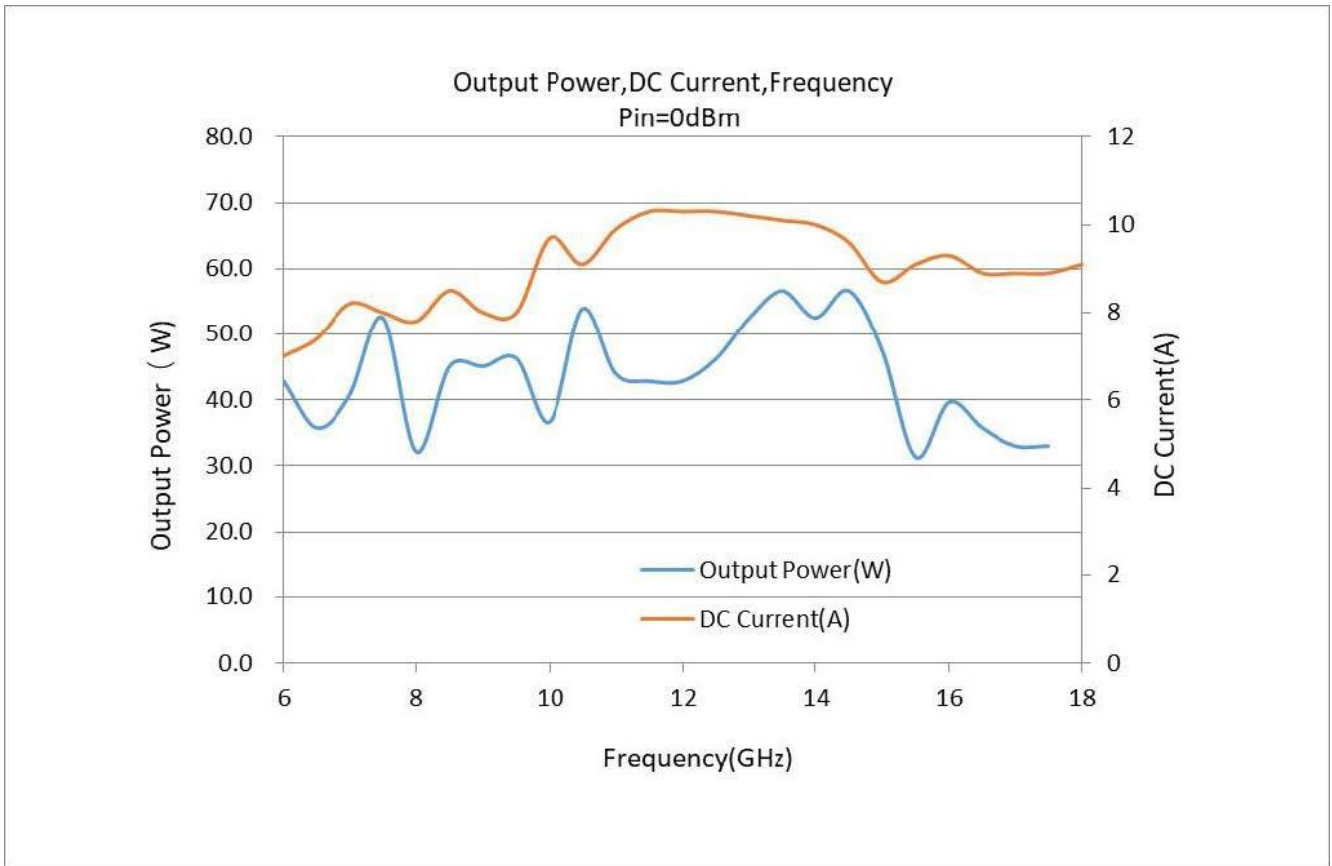
**POWER INTERFACE CONNECTOR**

Male D-Sub is on the housing

Pin #	Description	Specifications
1-4	VDD	28 V
5-9	GND	Ground
10	ENABLE	Amplifier Enable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
11	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
12	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
13-15	NC	No electrical connection

**TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)**

Output Power (Normal temp. +25±3°C)



**Note:** Adequate heatsink required.