

## 1.5-30MHz/200Watt/Module

Model Number: KB0001003M53A

The model KB0001003M53A is a high power amplifier operating between 1.5MHz and 30MHz and offering a wide dynamic Range with 200 Watts typical saturated power. The employment of LDMOS and chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for jamming, EMC, test and measurement applications.

**FEATURES:**

- Small Size and light weight
- Instantaneous ultra-broadband
- 50 Ohms input and Output matched
- Built-in control and protection circuits.

**ELECTRICAL SPECIFICATIONS @ +28.0VDC, 25°C, 50Ω**

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	1.5		30	MHz
RF Output Power	P <sub>out</sub>		200		Watt
Power Gain	G		53		dB
Input Return Loss	S <sub>11</sub>			-10	dB
Harmonics @100W	H		-10		dBc
Spurious Signals	Spur		-60		dBc
In/Output Impedance			50		Ω
Operating Voltage	V <sub>DC</sub>	24	28	32	Volt
DC Current @200W	I <sub>DD</sub>		15		Amp

**MECHANICAL SPECIFICATIONS**

Parameter	Value	Units	Limits
Dimensions	200x150x30 [7.5x5.9x1.2]	mm [inch]	Maximum
Weight	2 [4]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	N-Typ, Female		
DC Interface Connector	Hybrid,D-Sub 7-Pin, Male		
Cooling	External Heatsink (Not Supplied)		

**ENVIRONMENTAL CHARACTERISTICS (Design to Meet)**

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-20		60	°C	
Non-operating Temperature	-25		65	°C	Storage
Relative Humidity (non-condensing)			95	%	

**Absolute Maximum Rating**

Input RF drive level without	+10dBm	Maximum
Load VSWR @ P <sub>OUT</sub> =100W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous	
Thermal Overload	85°C shutdown	Maximum

*Focus on Your Application*

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Specifications subject to change without notice

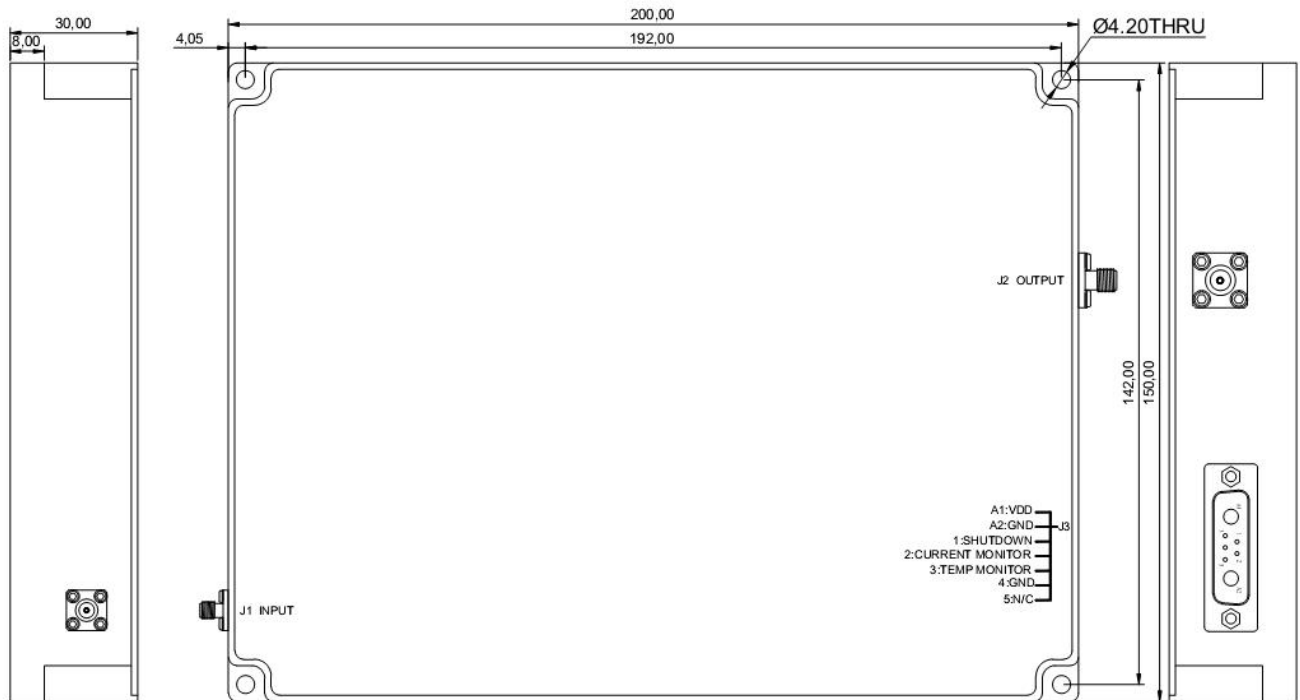
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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A1	VDD	28VCC
A2	GND	Ground
1	SHUTDOWN	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
2	CURRENT MONITOR	Analog voltage relative to I <sub>DD</sub> @ 100mV per Ampere
3	TEMP MONITOR	Analog voltage relative to Module's Temperature @ 10 mV/°C
4	GND	Ground
5	NC	No electrical connection

OUTLINE DRAWING (All dimensions in mm)



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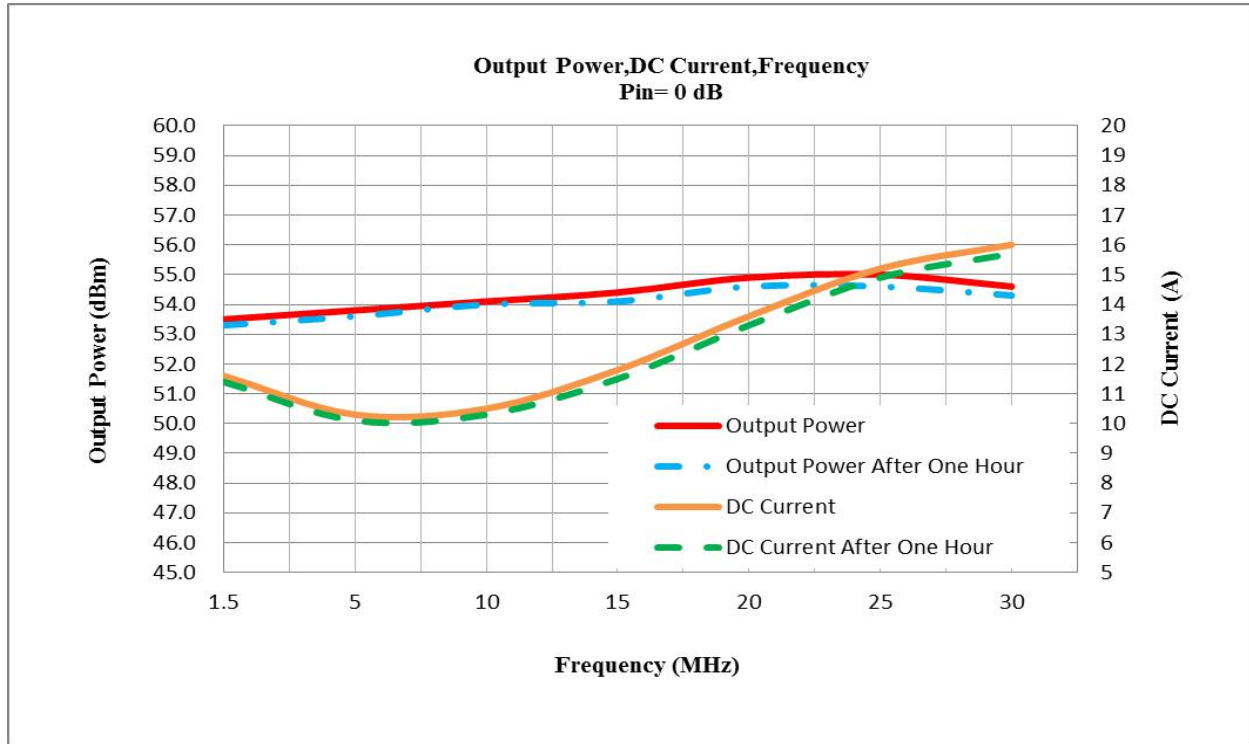
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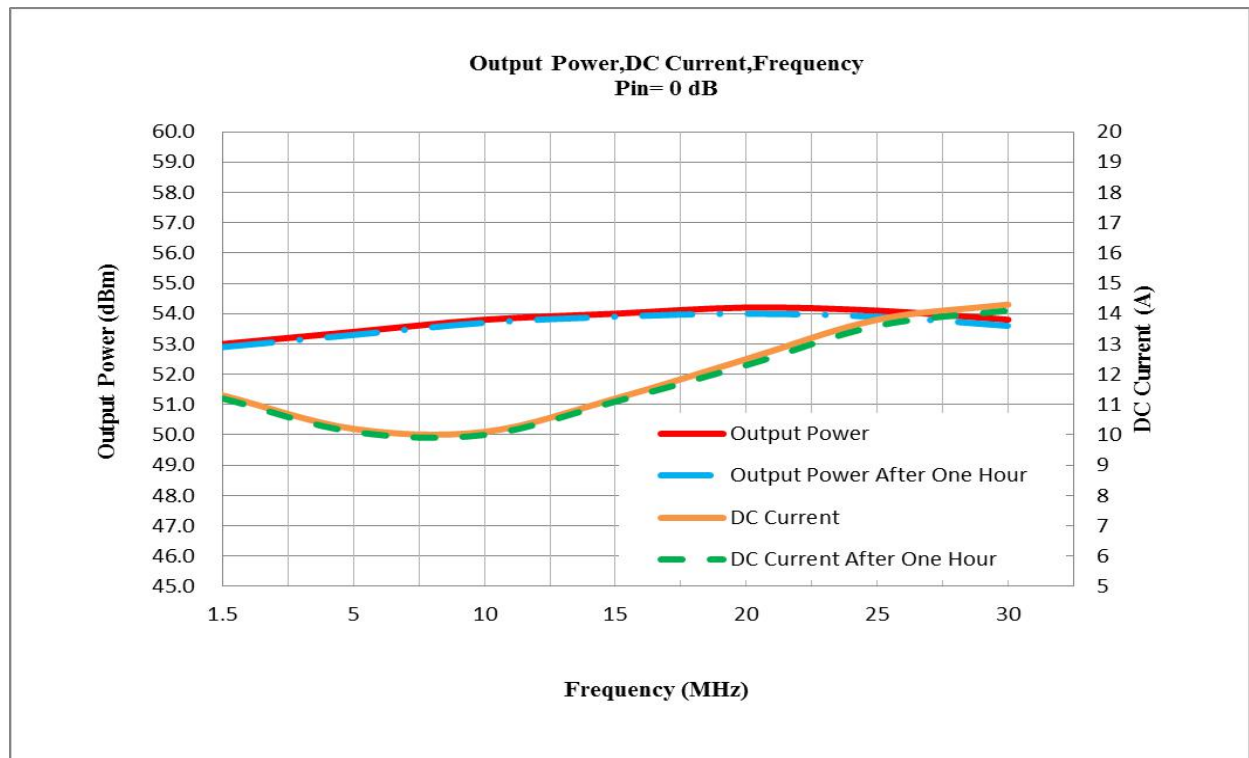
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TYPICAL PERFORMANCE PLOTS

Graph1: Output Power (Low temp.-20±3°C)



Graph2: Output Power (High temp. +60±3°C)



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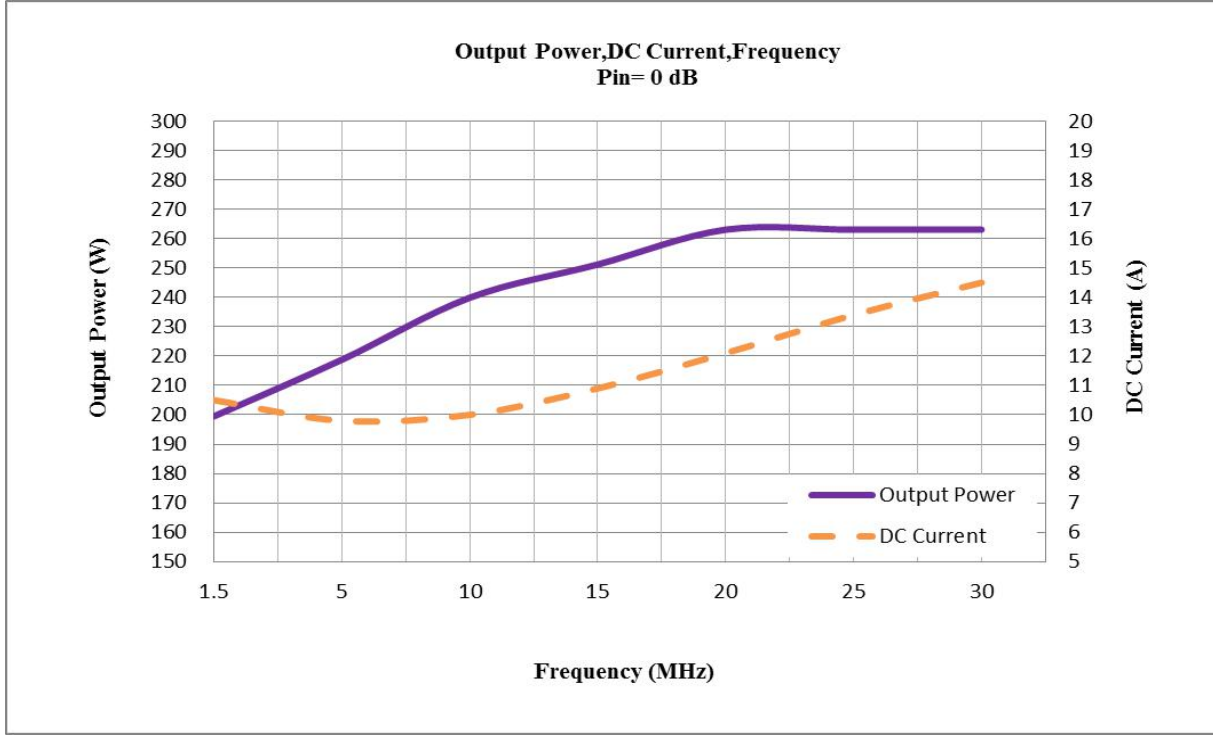
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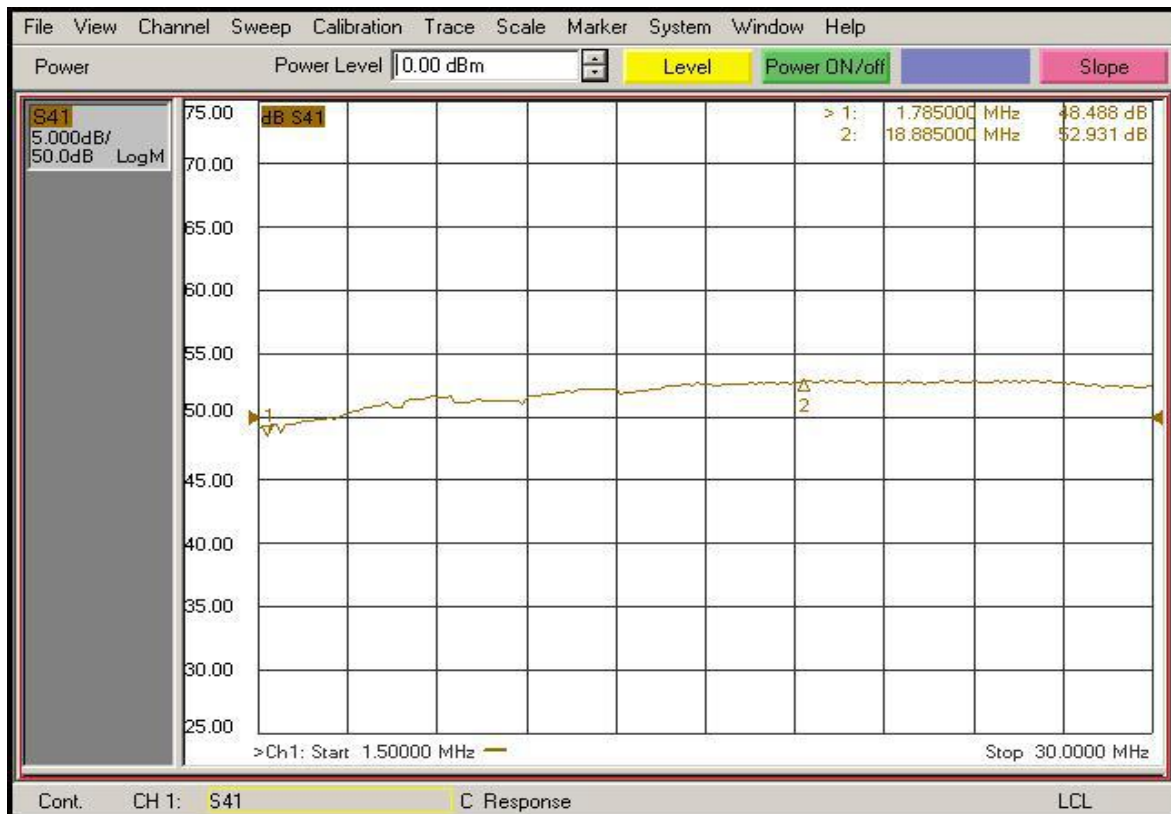
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Graph3: Output Power(Normal temp.+25±3°C)



Power Gain:



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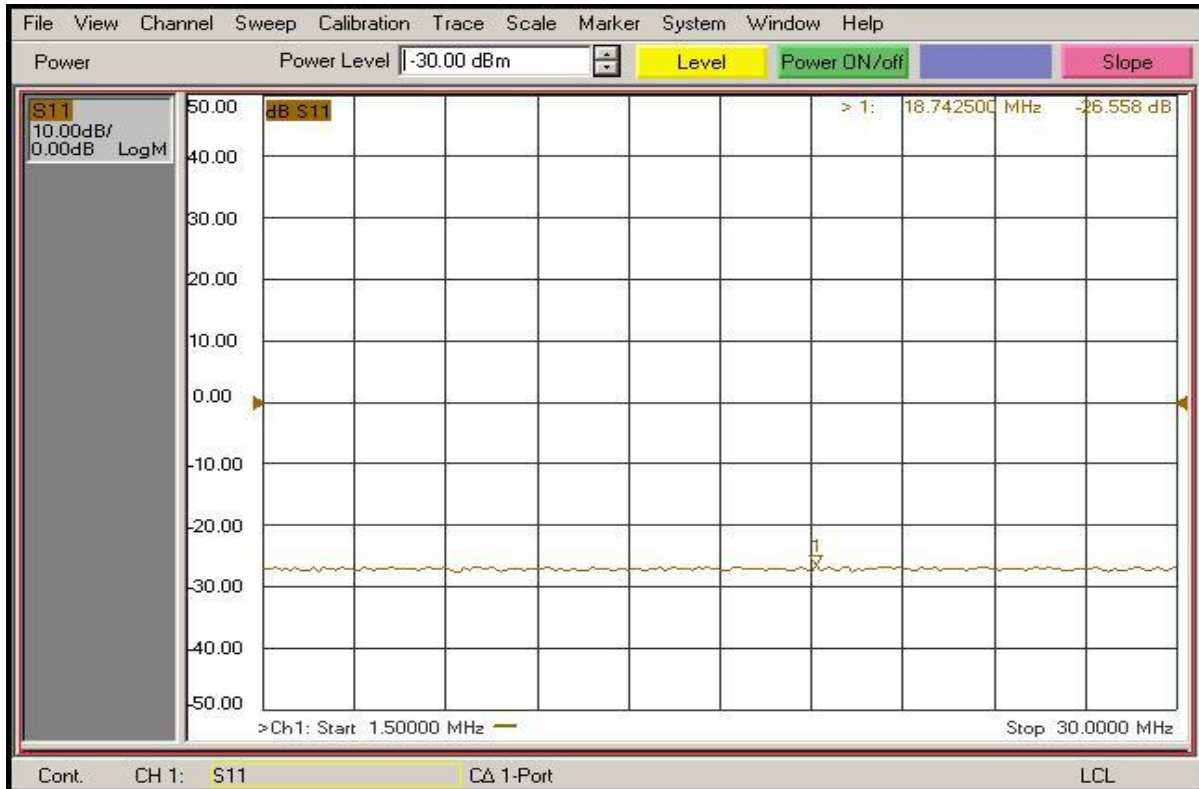
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Input Return Loss:



**Note:** Adequate heatsink required.

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