

## 1500-1700MHz/150Watt/Module

Model Number: KN1600M52A

The model KN1600M52A is a high power amplifier operating between 1500MHz and 1700 MHz and offering a wide dynamic Range with 150 Watts typical saturated power. The employment of advanced high power devices in manufacturing ensures this module exceptional power performance, long term reliability and high efficiency.

### FEATURES:

- Narrowband & High power
- High Efficiency
- Great Linearity
- Small Size & Light Weight
- Low Distortion

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	1500		1700	MHz
RF Output Power	P <sub>sat</sub>	150			Watt
Power Gain	G <sub>p</sub>		52		dB
Power Gain Flatness	Δ G <sub>p</sub>		±1.0		dB
Input Return Loss	S <sub>11</sub>			-10	dB
Harmonics @100W	H		-20		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time	T <sub>ON/OFF</sub>		2		μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	24	28	32	Volt
DC Current @150W	IDD		15		Amp

### MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	200x120x20 [7.87x4.7x0.98]	mm [inch]	Maximum
Weight	1.2 [2.64]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	N-KFD, Female		
DC Interface Connector	D-Sub 7-Pin, Male		
Cooling	External Heatsink Required (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 damage	+5 dBm (Max)
Load VSWR @ P <sub>OUT</sub> =100W	∞ @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C @ heatsink [restored @ 60°C]

*Focus on Your Application*

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Specifications subject to change without notice

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DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A	VDD	28V <sub>DC</sub>
B	GND	Ground
1	SHUTDOWN	Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low)
2	TEMP MONITOR	Analog voltage relative to Module's Temperature @ 10 mV/°C
3	CURRENT MONITOR	Analog voltage relative to I <sub>DD</sub> @100mV per Ampere
4	GND	Ground
5	GND	Ground

OUTLINE DRAWING (All dimensions in mm [inch])



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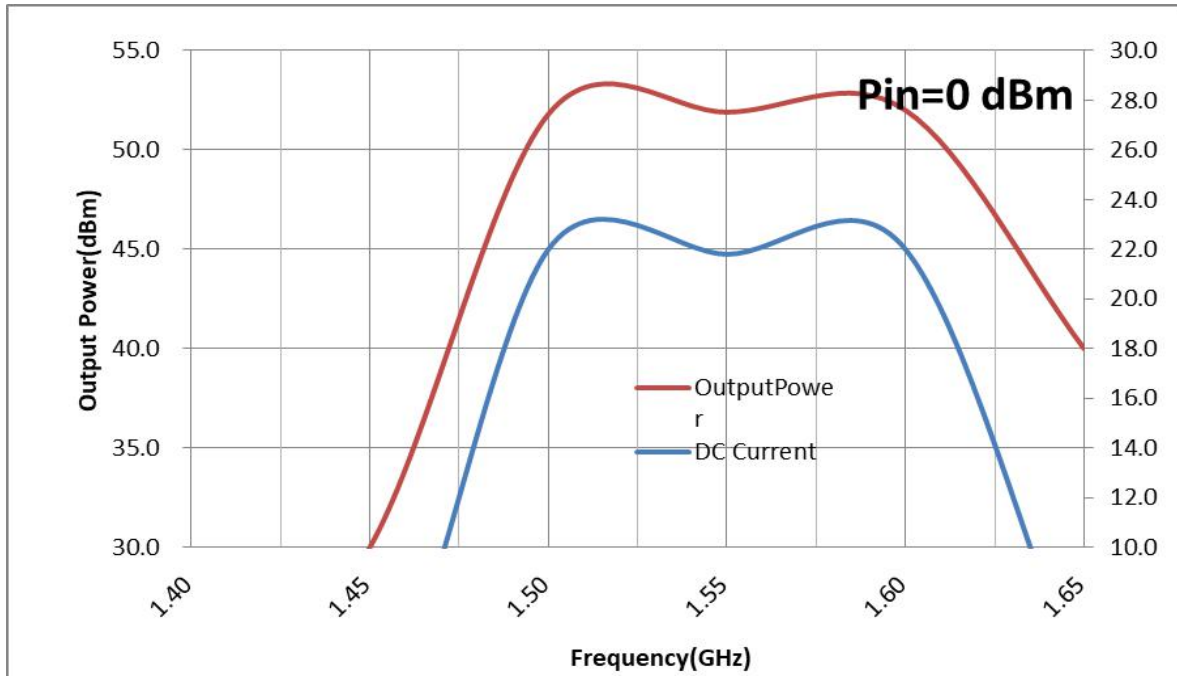
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TYPICAL PERFORMANCE PLOTS (For reference only)



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