

8000-12000MHz/20Watt/Module

The model KB80120M43D is a multi-octave high power amplifier operating between 8000 MHz and 12000 MHz and offering a wide dynamic Range with 20 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. It is ideal for multi octave high power X Band linear applications.

FEATURES:

1120M43D

- Broadband & High power
- High power
- High Efficiency
- Small Size & Light Weight
- Low Distortion
- Class AB

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	8000		12000	MHz
RF Output Power	Pout		20		Watt
Power Gain	Gp		43		dB
Power Gain Flatness	Δ Gp		±2		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @15W	H		-25		dBc
Spurious Signals	Spur		-55		dBc
Switch On/Off@10-90% Time	TON/OFF		2	5	μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	26	28	30	Volt
Power add efficiency	Eff		20		%
DC Current @15W	IDD		5		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	160x120x25 [6.3x4.7x0.98]	mm [inch]	Maximum
Weight	2.5 [4.9]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	Hybrid,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	+10 dBm (Max)
Load VSWR @ POUT =15W	∞ @ 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

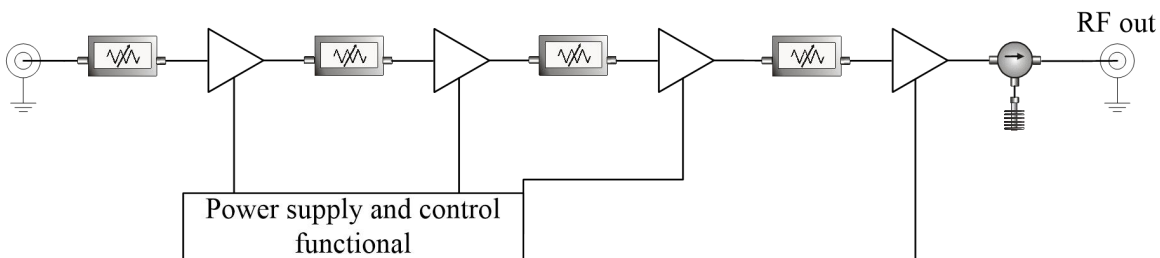
8000-12000MHz/20Watt/Module

Model Number: KB80120M43D

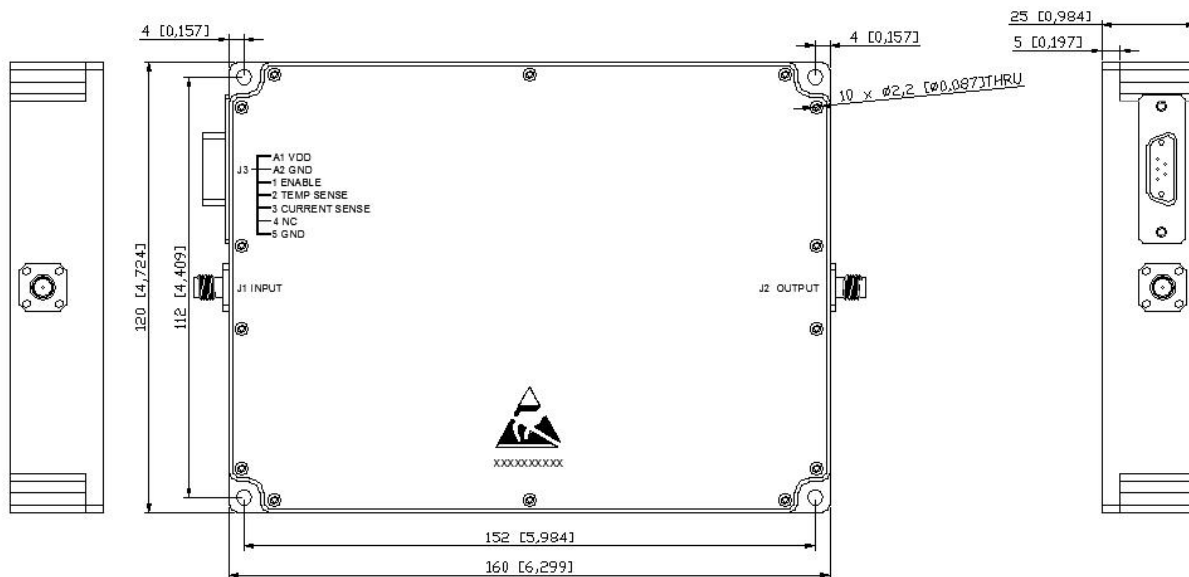
DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A1	VDD	28V _{dc}
A2	GND	Ground
1	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)
2	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
3	CURRENT SENSE	Analog voltage relative to I _{DD} @ 100mV per Ampere
4	NC	No electrical connection
5	GND	Ground

Functional Diagram



OUTLINE DRAWING (All dimensions in mm [inch])



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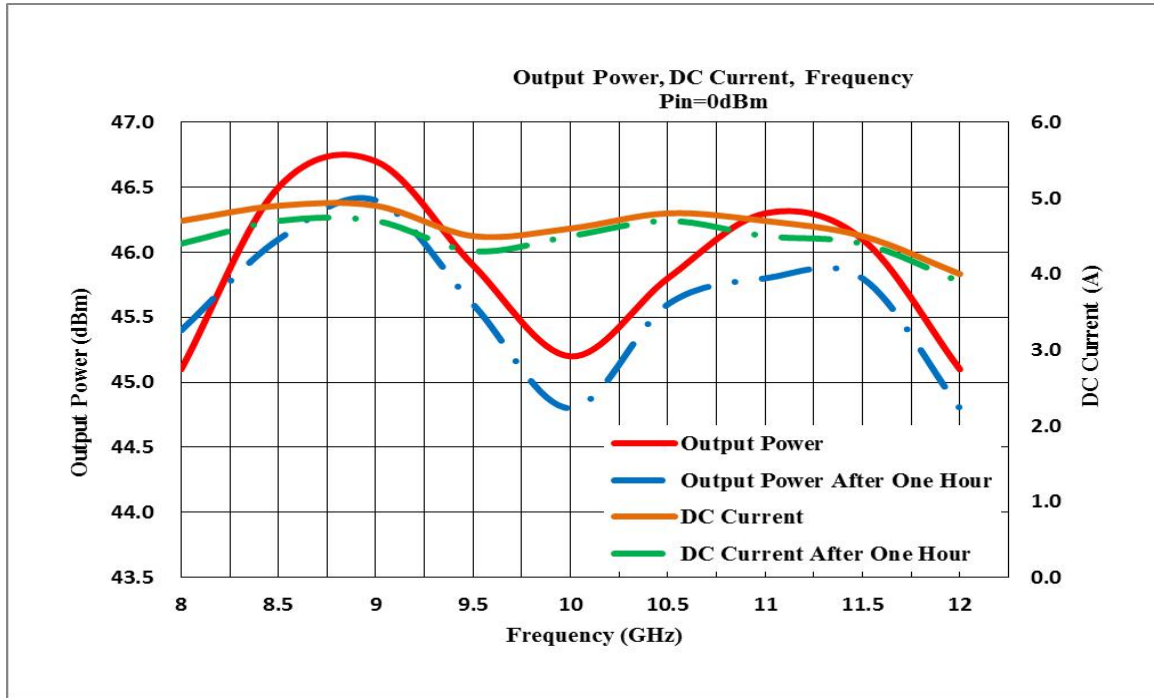
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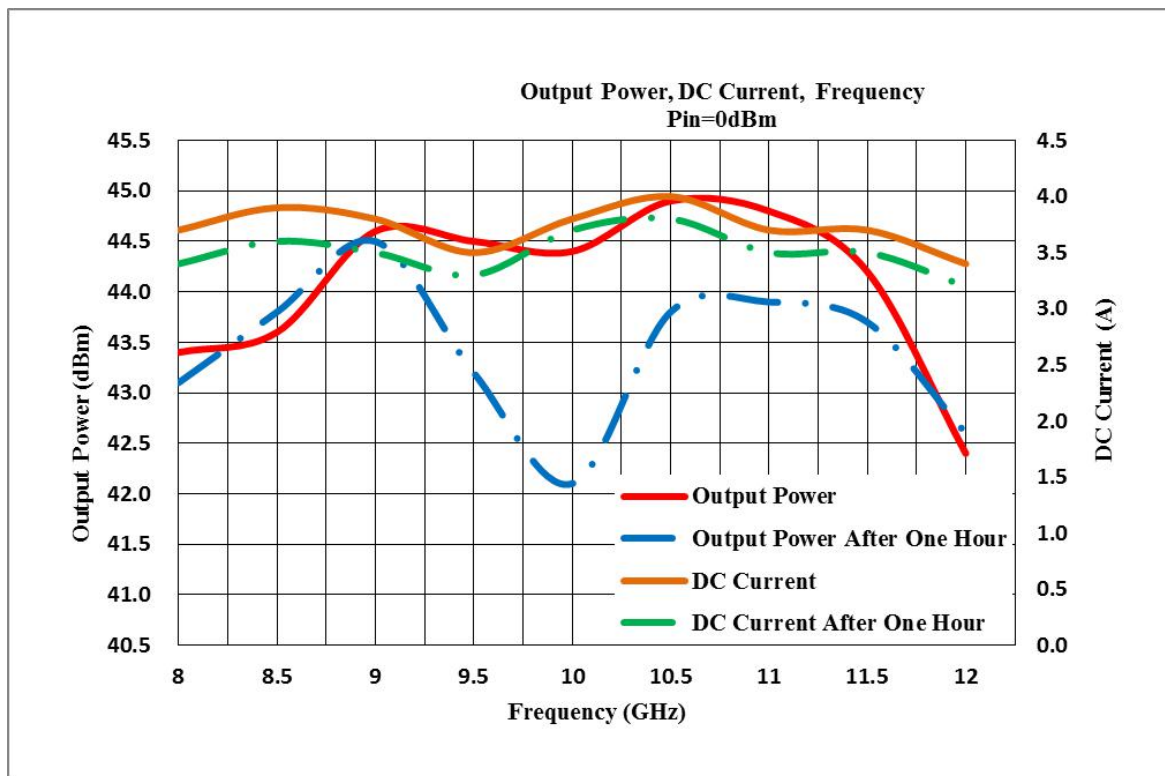
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TYPICAL PERFORMANCE PLOTS(For reference only)

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



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



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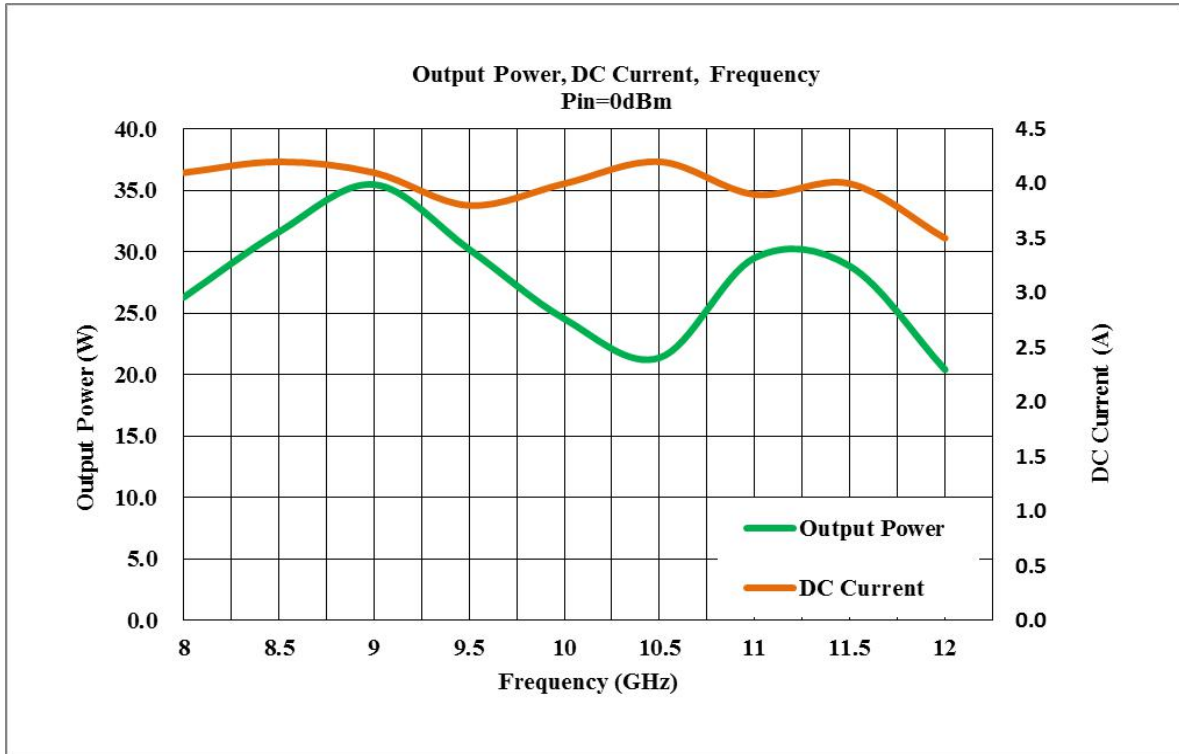
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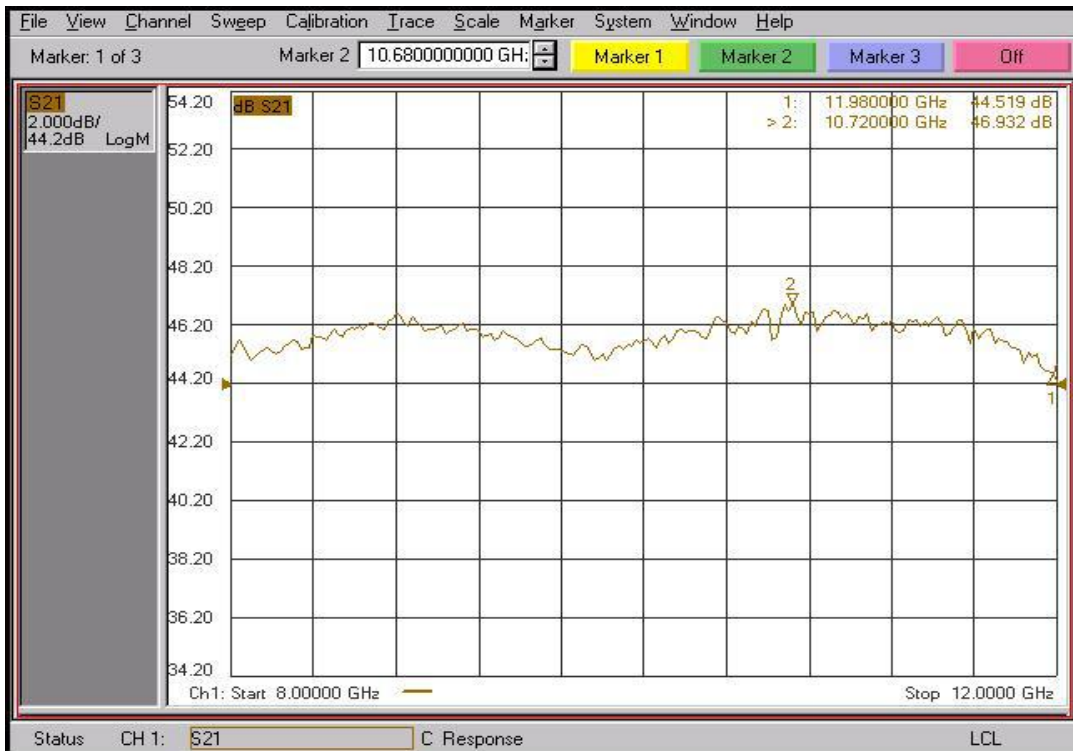
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Graph3: Output Power (Normal temp.+25±3°C)



Power Gain:



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Input Return Loss:



Note:

1. Adequate heatsink required.
2. This product will be developed upon contract/order. All the above specs are for reference only. Actual product may be different. Please check with KeyLink sales team if you have any question.

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