

18-40GHz/20Watt/Module

Model Number: KB180400M43B

The model KB180400M43B is a broadband high power amplifier operating between 18GHz and 40GHz and offering a wide dynamic Range with 20 Watts typical saturated power. The employment of gallium nitride (GaN) 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 broadband mobile Jamming and band specific high power applications in the frequency bands.

FEATURES:

- Broadband & High Power
- Small Size & Light Weight
- 50 Ohms Input and Output Matched
- Built-In Control and Protection Circuits

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	18		40	GHz
RF Output Power@Pin=0dBm	Psat		20		Watt
Power Gain	Gp		43		dB
Power Gain Flatness	Δ Gp			±2	dB
Input Return Loss	S11			-10	dB
Harmonics 2 nd @Psat	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 Connector Input	2.92mm, Female		
RF Connector Output	2.92mm, Female(or WRD180)		
DC Interface Connector	J29A-25ZKP		
Cooling	External Heatsink (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)	5		95	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+5dBm (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]

Focus on Your Application

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Specifications subject to change without notice

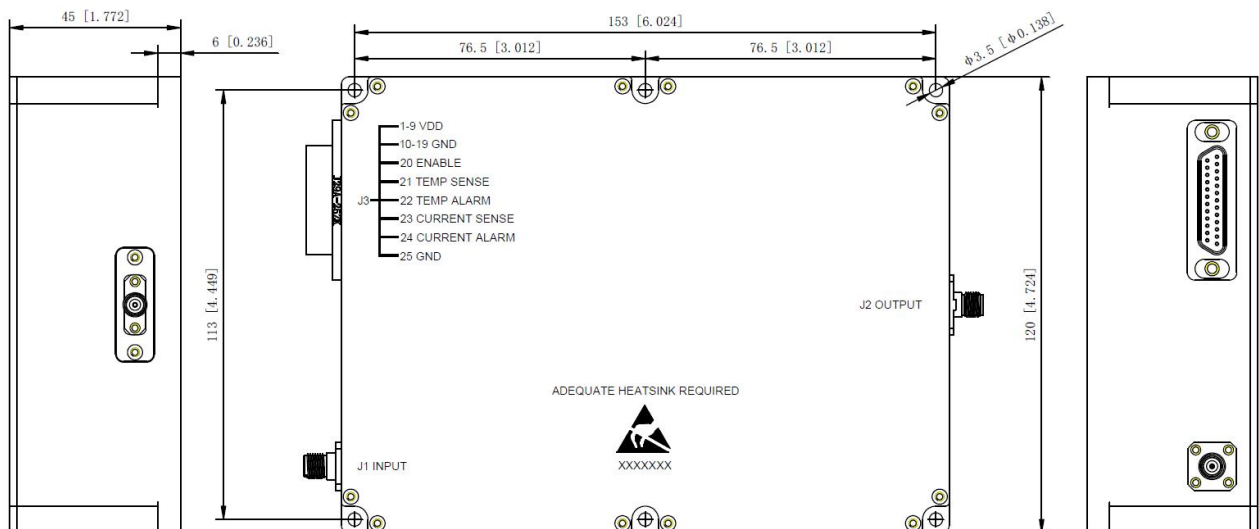
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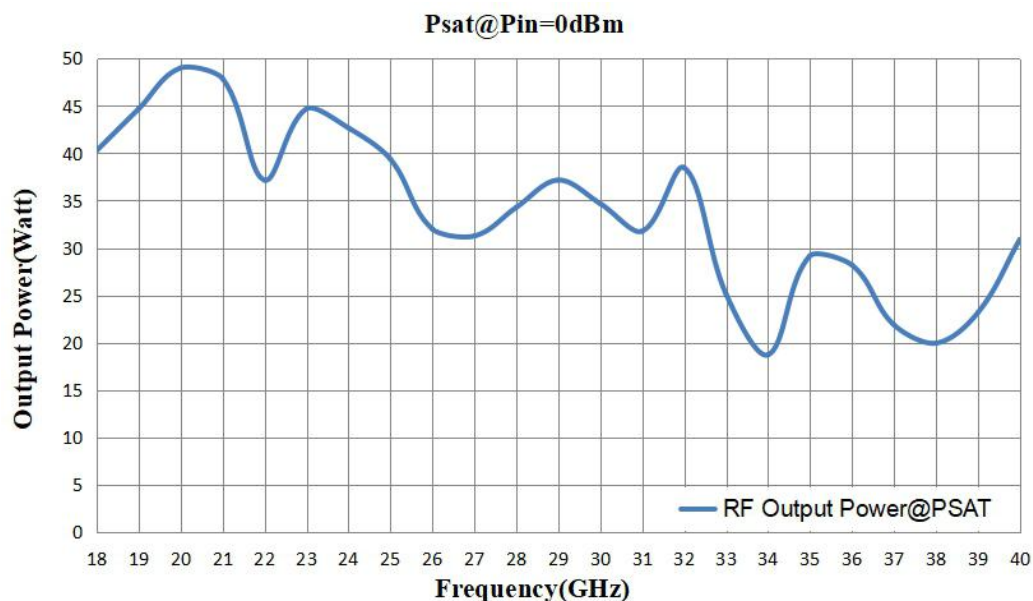
POWER & CONTROL INTERFACE CONNECTOR

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

OUTLINE DRAWING (All dimensions in mm [inch],dimensional tolerance:±0.2mm)



TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)



Note: Adequate heatsink required.

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