

700-2700MHz/50Watt/Module

Model Number: KB0727M47C

The model KB0727M47C is a multi-octave high power amplifier operating between 700 MHz and 2700 MHz and offering a wide dynamic range with 50 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 broadband high power RF, L&S applications.

FEATURES:

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

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

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	700		2700	MHz
RF Output Power	Pout		50		Watt
Power Gain @ PSAT	Gp		47		dB
Input Power for Rated PSAT	Pin		0		dBm
Power Gain Flatness	ΔGp		±2		dB
Input Return Loss	S11		-15	-10	dB
Harmonics @20W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time	TON/OFF		2	5	μs
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	24	28	32	Volt
DC Current @50W	IDD		6		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimension	162.56x86.36x25 [6.4x3.4 x0.98]	mm[inch]	Maximum
Weight	0.8 [1.76]	kg [lbs]	Maximum
RF Connector Input	SMA, Female		
RF Connector Output	SMA, Female		
DC Interface Connector	D-Sub 9-Pin, Male		
Cooling	External Heat sink 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 =30W	∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C Graceful Degradation

Focus on Your Application

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Specifications subject to change without notice

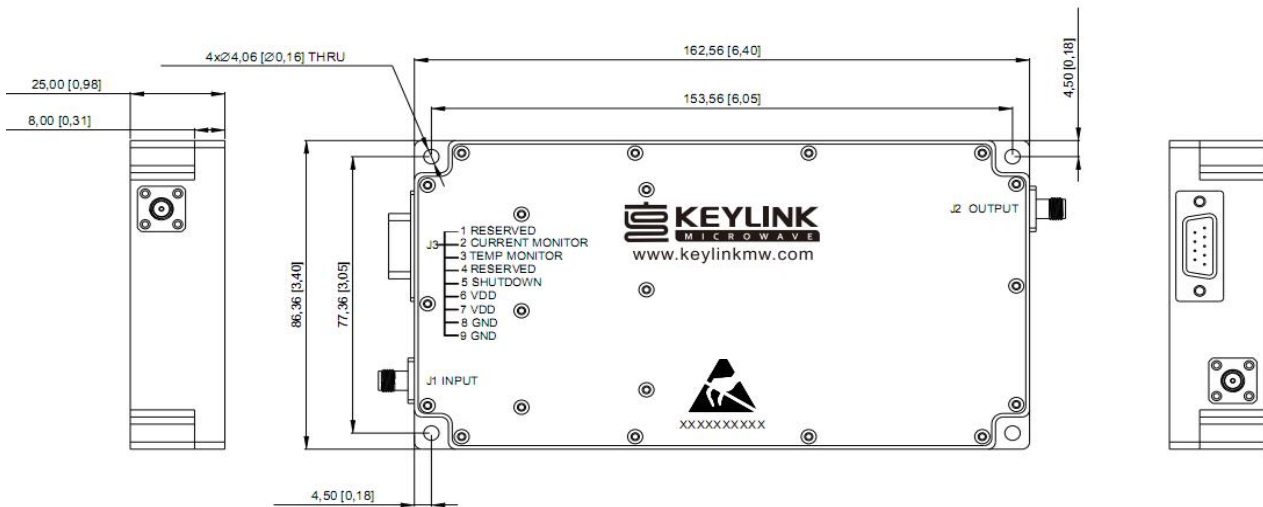
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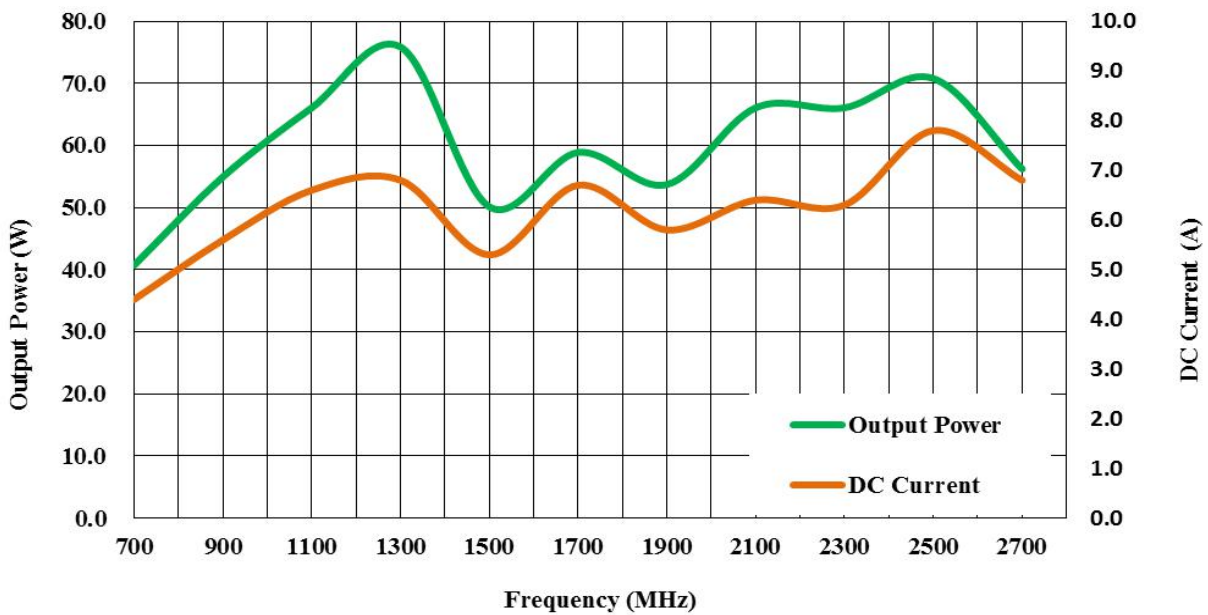
DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1	Reserved	No Connection
2	Current Monitor	Analog voltage relative to IDD @ 50mV/100mA
3	Temp Monitor	Analog voltage relative to module temperature @ 10mV/°C
4	Reserved	No Connection
5	Shutdown	Amplifier Disable: TTL Logic High (5V)
6, 7	VDD	+28.0VDC
8, 9	GND	Ground

OUTLINE DRAWING (All dimensions in mm [inch])



TYPICAL PERFORMANCE PLOTS (For reference only)



Note: Adequate heatsink required.

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