

400-7200MHz/50Watt/Module

Model Number: MCW0472M47A

The model MCW0472M47A is a multi-octave high power amplifier operating between 400 MHz and 7200 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, P&L&S applications.

FEATURES:

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

ELECTRICAL SPECIFICATIONS @ +36.0VDC, 25°C, 50Ω;

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	400		7200	MHz
RF Output Power	Pout		50		Watt
Power Gain @ PSAT	Gp		47		dB
Input Power for Rated PSAT	PIN		0		dBm
Power Gain Flatness	Δ Gp		±1.5		dB
Input Return Loss	S11			-10	dB
Harmonics @50W	H		-10		dBc
Spurious Signals	Spur		-60		dBc
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	34	36	38	Volt
Current Consumption @ Shutdown	ISD			0.1	Amp
DC Current @50W	IDD		6		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	260x150x30 [10.2x5.91x1.188]	mm[inch]	Maximum
Weight	3 [6.6]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	N, 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	%	

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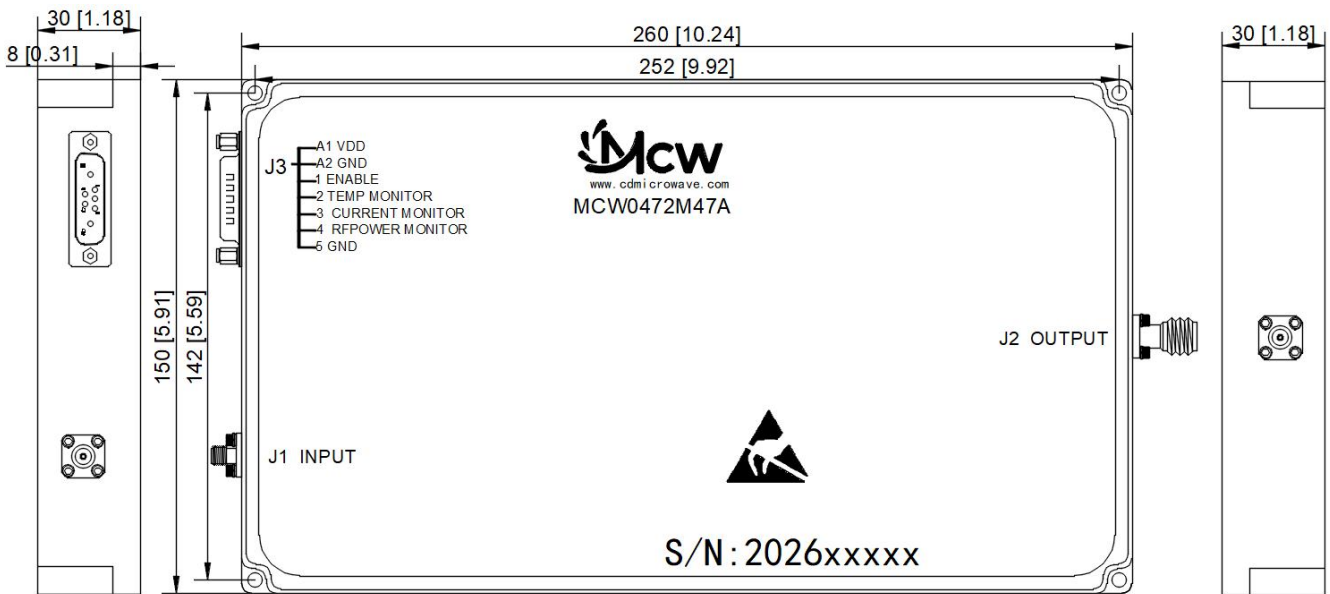
ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+10 dBm (Max)
Load VSWR @ POUT =50W	∞ @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous
Over Temperature	85 °C Graceful Degradation

DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A1	VDD	36VCC
A2	GND	Ground
1	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)
2	CURRENT MONITOR	Analog voltage relative to I _{DD} @ 100mV per Ampere
3	TEMP MONITOR	Analog voltage relative to Module's Temperature @ 10 mV/°C
4	NC	No electrical connection
5	GND	Ground

OUTLINE DRAWING (All dimensions in mm [inch])



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TYPICAL PERFORMANCE PLOTS(For reference only)

Graph 1: Output Power (Normal temp. +25±3 °C)

