LINEAR WIDEBAND POWER AMPLIFIER

Model – MB030512M505050

100 watts 30 to 512 MHz 50 VDC

General Description:

Elite RF's MB Series amplifier is a wideband power amplifier designed for CW signals fabricated on GaN on SiC process and can operate up to **512 MHz**. These amplifiers offer high power density, decade bandwidth performance, low thermal resistance, and wideband performance. They can be widely used for military and commercial applications.

Like all Elite RF amplifiers, this product comes with an industry leading **3-year Warranty.**

Features	Indicator options	Protections
Wide Freq. Range	DC Power	Thermal Overload
High Output Power	Temp Fault	Over Voltage
High Gain		Reverse Polarity
High Reverse Isolation		
Built-in Protection		
Enable/Disable input (ground to disable)		

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	30		512	MHz
Output Power CW	Psat		100		Watt
Output Power at 1 dB Compression	P1dB		40		Watt
Small Signal Gain	Gp		52		dB
Gain Flatness	Delta Gp 1		+/- 3		dB
Input VSWR	S11		2:1		Ratio
IMD @ .2 GHz @ .1 watt/tone / 1 MHz spacing	IP3		54		dBm
Harmonics	H		-20		dBc
Spurious Signals	Spur		-60		dBc
Operating Voltage	VDC	49	50	51	VDC
Current at 100 watts	Current		4.5		Amps
Class of Operation	C		AB		Class
Noise Figure	NF		5		dB
Large Signal Gain	Lsg		50		dB
Max Load VSWR @ 100 Watts	ML		6:1		Ratio

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	Tc	-20		+60	Deg. C
Storage Temperature	Tstg	-40		+85	Deg. C
Relative Humidity (non-condensing)	RH			95	%
Altitude	ALT			10,000	Feet
Vibration/Shock	VI /SH		Normal Truck Transport		

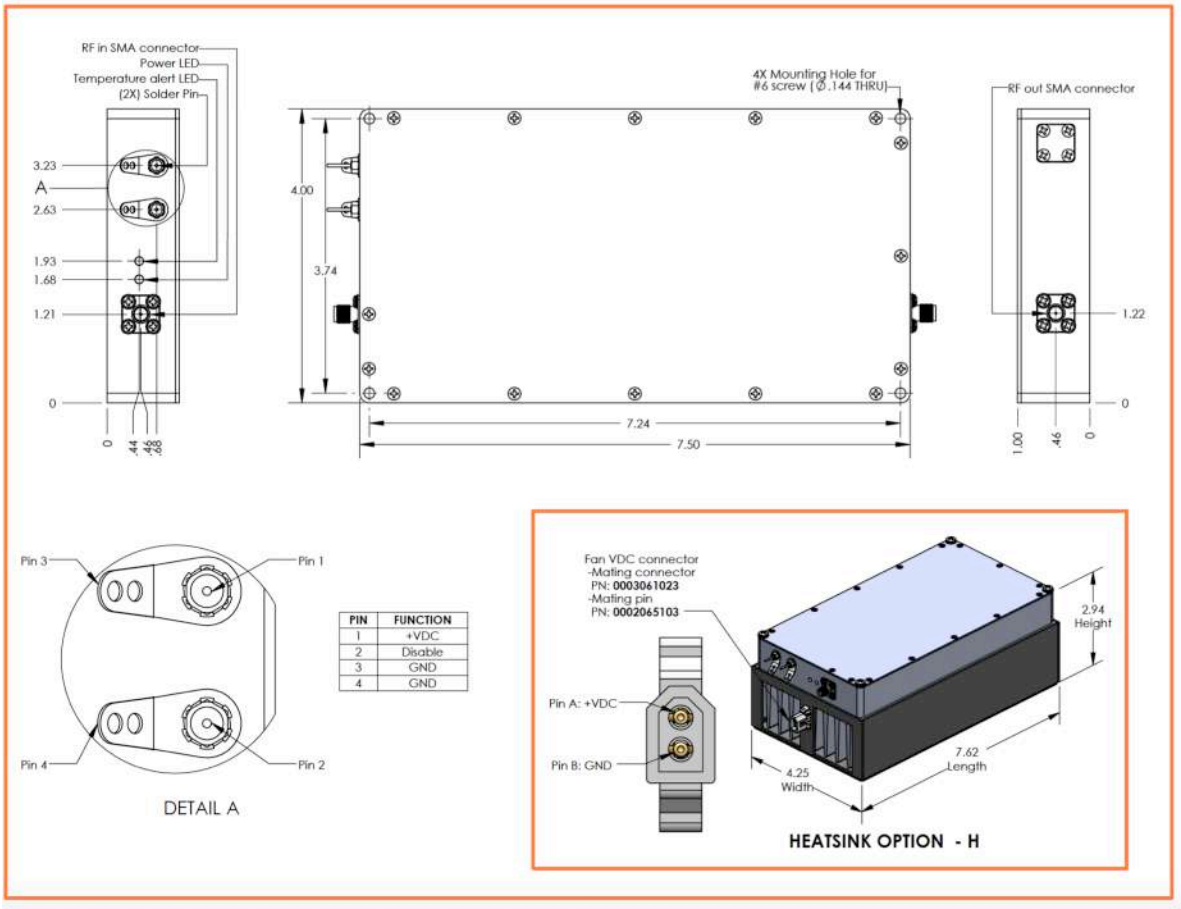
MECHANICAL CHARACTERISTICS

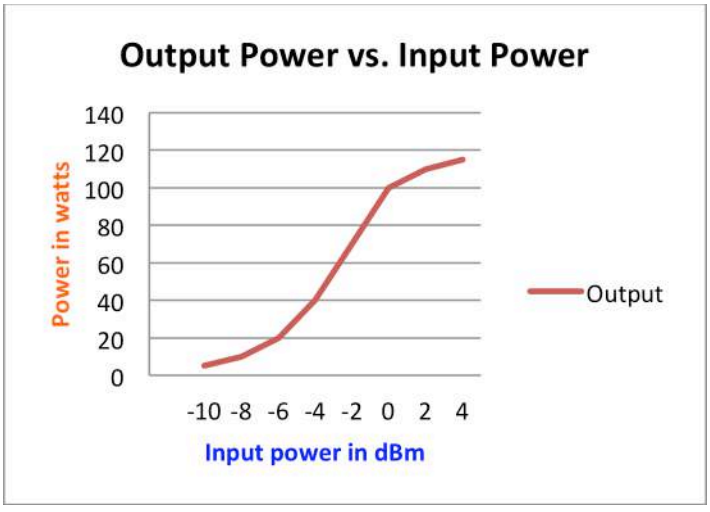
Parameter	Symbol	Min	Typ	Max	Unit
Dimensions	Dim		7.5 x 4.0 x 1.0		Inches
Weight	Wt.		1		lbs.
Connectors In/Out	RF Conn		SMA/SMA		-
Cooling	Th		Heat sink required		-

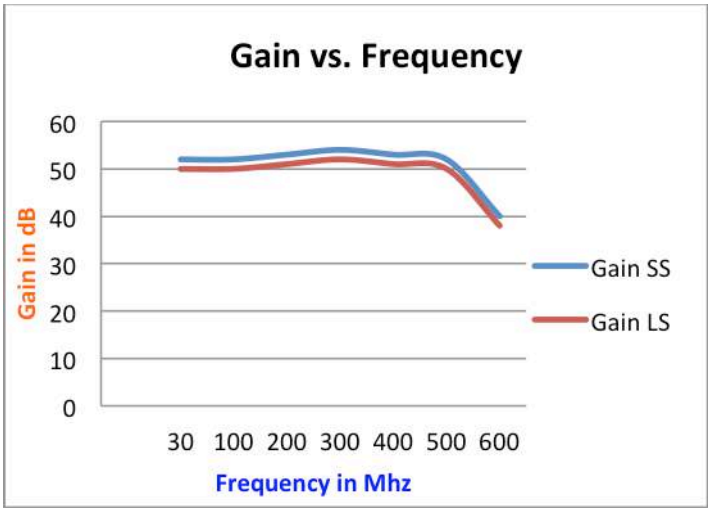
OPTIONS

Parameter	Add suffix to part number
Heat sink and fans	- H
Isolator with forward and reverse voltage outputs	N/A
TTL Input Trigger	- T

Mechanical Drawings







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Specifications subject to change, consult sales for latest information