

# LINEAR WIDEBAND POWER AMPLIFIER

**Model – MB.106.0G404050**

## 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 **6.0 GHz**. 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 warranty.



### Features

Wide Freq. Range  
High Output Power  
High Gain  
High Reverse Isolation  
Built-in Protection  
Enable/Disable input (ground to disable)

### Indicator options

DC Power  
Temp Fault

### Protections

Thermal Overload  
Over Voltage  
Reverse Polarity

## ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	100		6000	MHz
Output Power CW	Psat		10		Watt
Output Power at 1 dB Compression	P1dB		5		Watt
Small Signal Gain	Gp		42		dB
Gain Flatness	Delta Gp 1		+/- 3		dB
Input VSWR	S11		2:1		Ratio
IMD @ 2 GHz @ 1 watt/tone / 1 MHz spacing	IP3		45		dBm
Harmonics	H		-20		dBc
Spurious Signals	Spur		-60		dBc
Operating Voltage	VDC	49	50	51	VDC
Current at 10 watts	Current		1.5		Amps
Class of Operation	C		AB		Class
Noise Figure	NF		5		dB
Large Signal Gain	Lsg		40		dB
Max Load VSWR @ 10 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

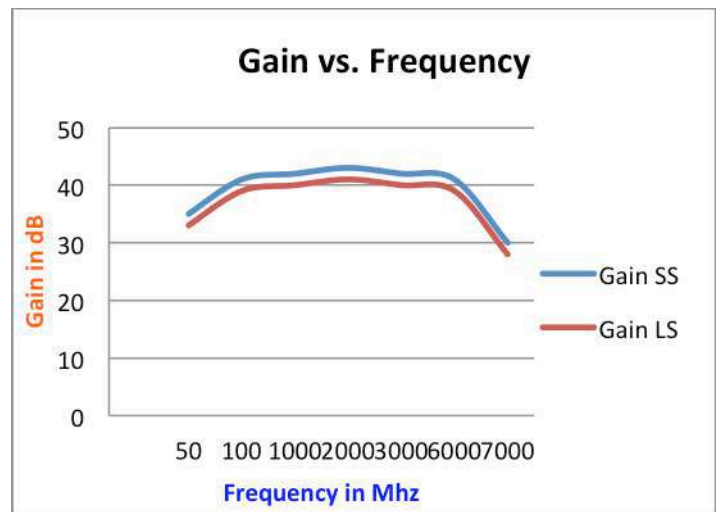
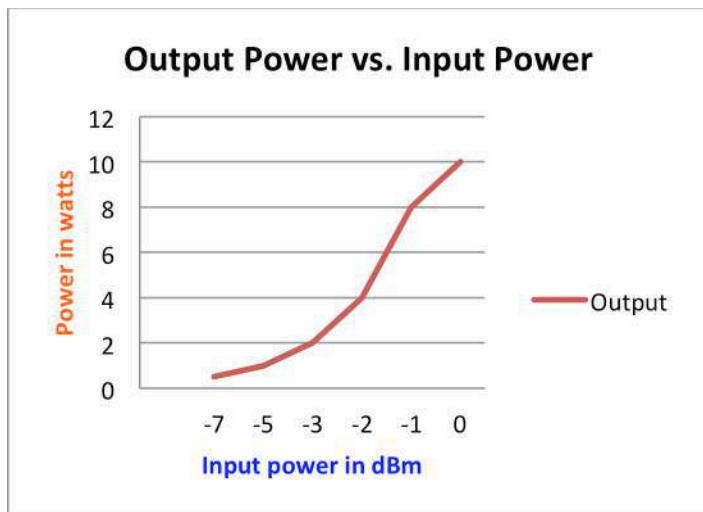
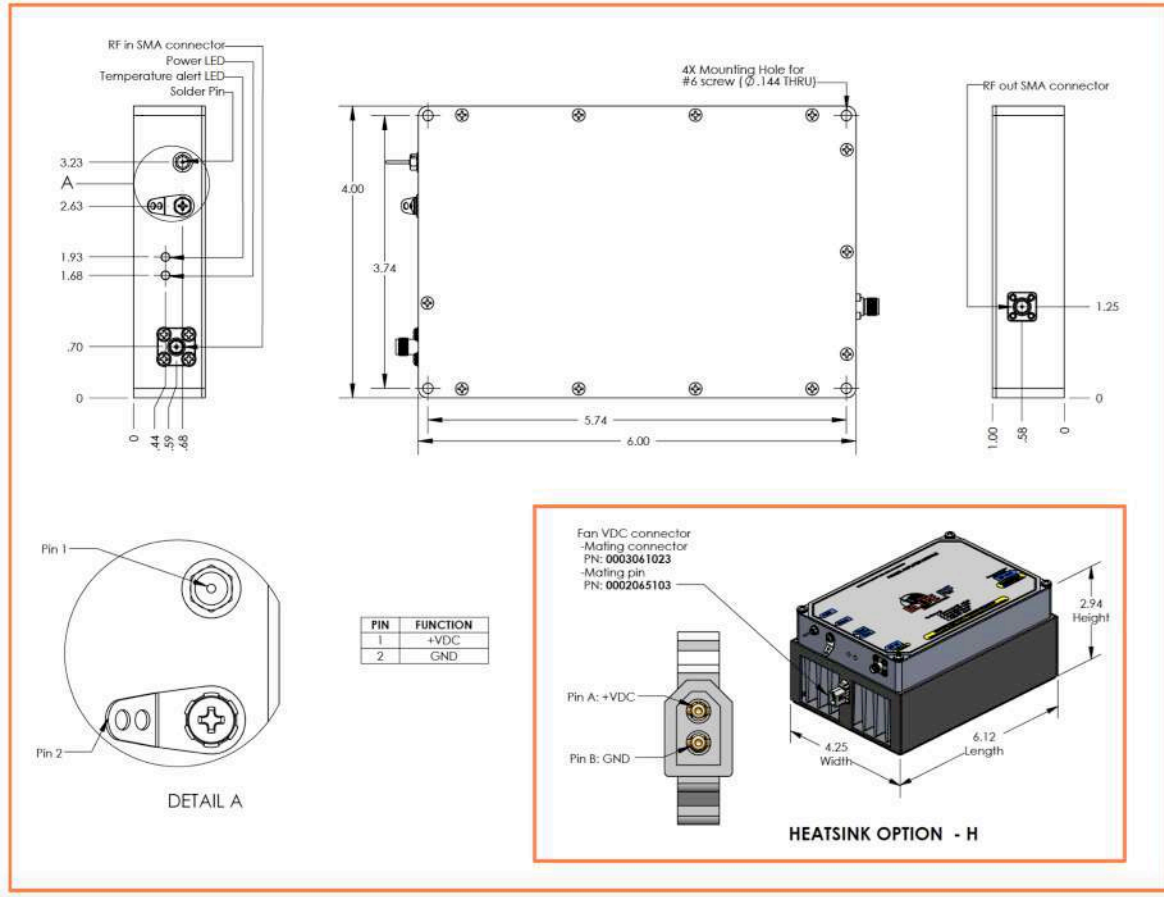
## MECHANICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Dimensions	Dim		6.0 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



Elite RF LLC

1700 Tower Dr, Hanover Park, IL 60133, USA  
 Call us for customer service/technical support at: 847-592-6350  
 Email: sales@eliterf.com Web: www.eliterfllc.com

Rev 3 08/23/2023:  
 Specifications subject to change, consult sales for latest information