

LINEAR WIDEBAND POWER AMPLIFIER

Model – MB.502.5G504828



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 **2.5 GHz**. These amplifiers offer high power density, 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	500		2500	MHz
Output Power CW	Psat		100		Watt
Output Power at 1 dB Compression	P1dB		50		Watt
Small Signal Gain	Gp		50		dB
Gain Flatness	Delta Gp 1		+/- 2		dB
Input VSWR	S11		2:1		Ratio
IMD @ 1 watt/tone @ 1 MHz spacing	IP3		52		dBm
Harmonics	H		-20		dBc
Spurious Signals	Spur		-60		dBc
Operating Voltage	VDC	27	28	29	VDC
Current at 100 watts	Current		10		Amps
Class of Operation	C		AB		Class
Noise Figure	NF		7		dB
Large Signal Gain	Lsg		48		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	

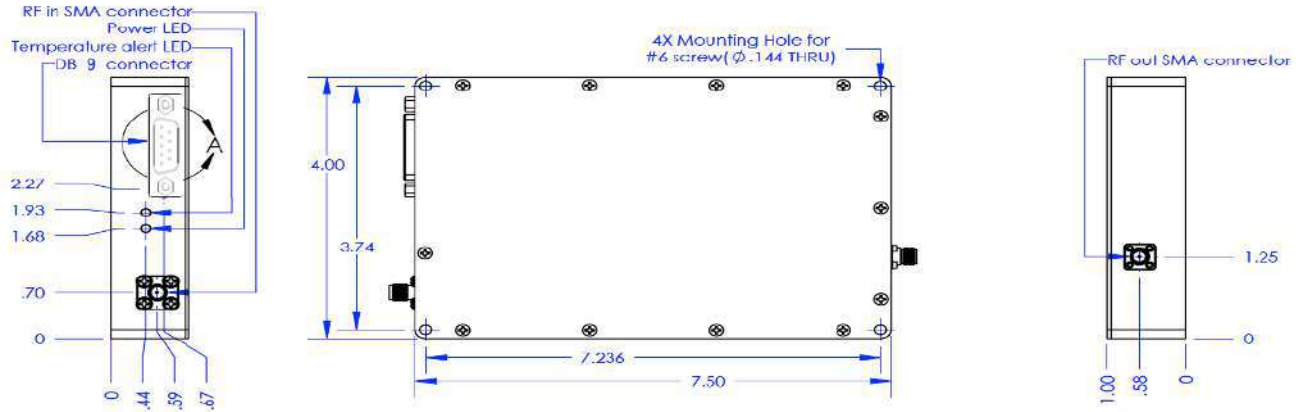
MECHANICAL CHARACTERISTICS

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



DC INTERFACE CONNECTOR – D-sub, 9-Pin, Male

Pin #	Description	Specification
2	Current Monitor	Analog voltage relative to I _{DD}
3	Temp. Sense	Analog voltage relative to Unit's Temperature
5	Shutdown	Amplifier Disable. TTL Log High (5V) = Disable (Internally Pulled-Low)
1, 6, 7	VDD	+27.0-29.0V _{DC}
4, 8, 9	GND	Ground

