

LINEAR WIDEBAND POWER AMPLIFIER

Model – MB.051.0G374828

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 **1.0 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 **3-year warranty**.

Features	Indicator options	Protections
Wide Freq. Range High Output Power High Gain High Reverse Isolation Built-in Protection	DC Power Temp Fault	Thermal Overload Over Voltage Reverse Polarity

5 watts 50 to 1000 MHz 28 VDC

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	50		1000	MHz
Output Power CW	Psat		5		Watt
Output Power at 1 dB Compression	P1dB		2		Watt
Small Signal Gain	Gp		48		dB
Gain Flatness	Delta Gp 1		+/- 3		dB
Input VSWR	S11		2:1		Ratio
IMD @ .5 GHz @ .1 watt/tone / 1 MHz spacing	IP3		40		dBm
Harmonics	H		-20		dBc
Spurious Signals	Spur		-60		dBc
Operating Voltage	VDC	27	28	29	VDC
Current at 5 watts	Current		1.0		Amps
Class of Operation	C		AB		Class
Noise Figure	NF		7		dB
Large Signal Gain	Lsg		35		dB
Max Load VSWR @ 5 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

