

# LINEAR WIDEBAND POWER AMPLIFIER

**Model – AA.502.5G5048AC**

## General Description:

Elite RF's AA 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

## Protections

- Thermal Overload
- Over Voltage

## 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		48		dB
Gain Flatness	Delta Gp 1		+/- 2		dB
Input VSWR	S11		2:1		Ratio
IMD @ 2 GHz @ 1 watt/tone / 1 MHz spacing	IP3		55		dBm
Harmonics	H		-20		dBc
Spurious Signals	Spur		-50		dBc
Operating Voltage	Opv	100	120	240	VAC
AC Power at 100 watts	Pd		400		Watt
Class of Operation	C		A		Class
Noise Figure	NF		7		dB
Large Signal Gain	Lsg		46		dB
Max Load VSWR @ 100 Watts	ML		6:1		Ratio

## ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	Tc	0		+50	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

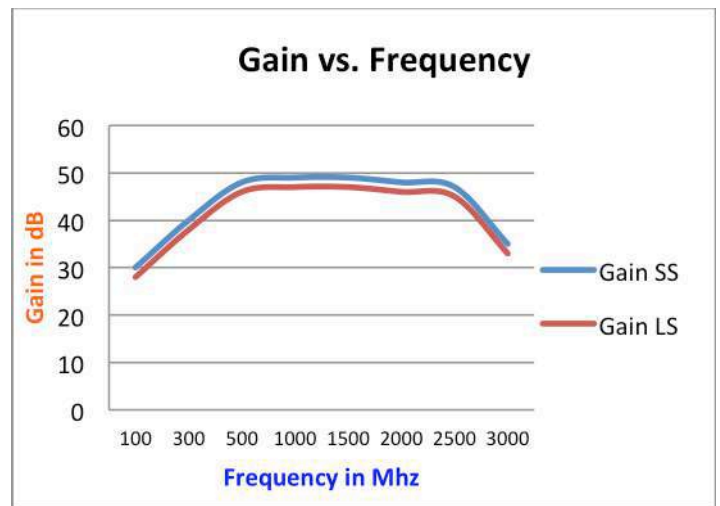
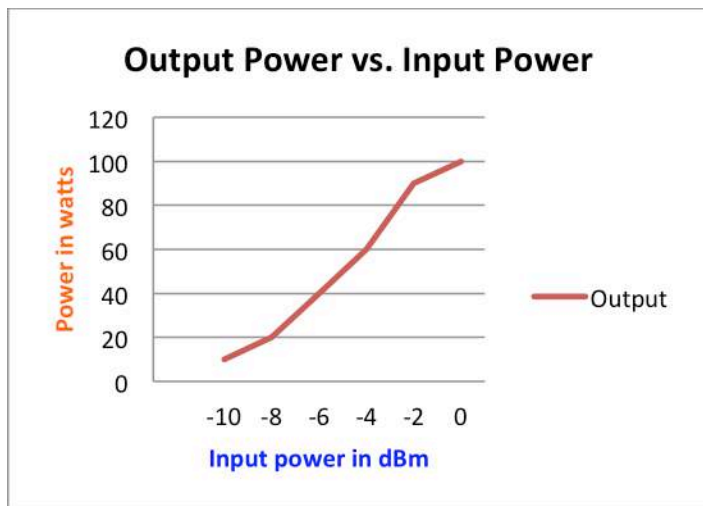
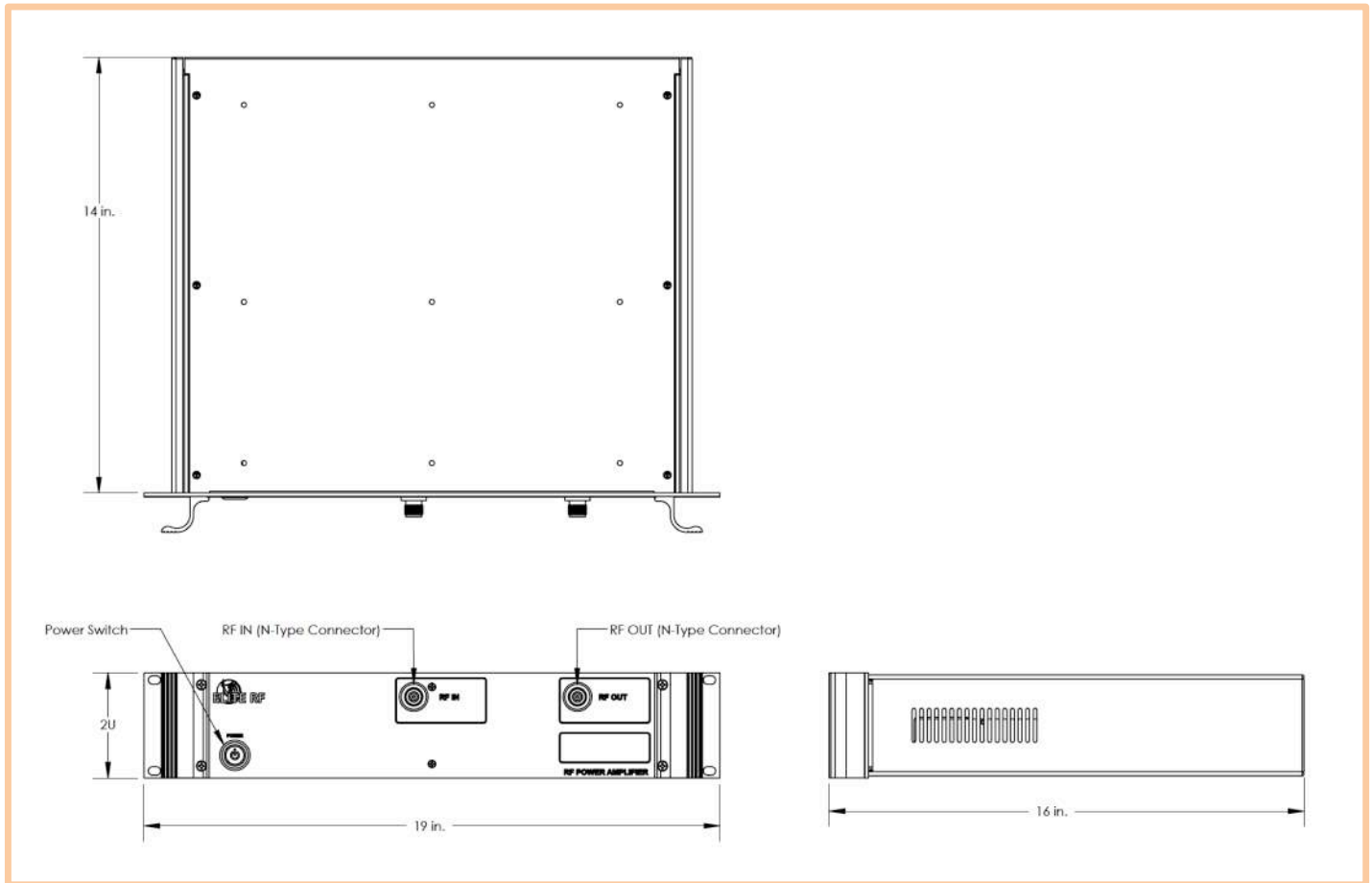
## MECHANICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Dimensions	Dim		19 x 15 x 3.5		Inches
Weight	Wt.		25		lbs.
Connectors In/Out	RF Conn		N-Type		-
Cooling	Th		Forced air cooling		-

## OPTIONS

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

## 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

**Rev4 025/28/2023:** Specifications subject to change, consult sales for latest information

**Product Compliance:**  
 ECCN: EAR99  
 USHTS: 8541290075