



## Wideband Amp Pallet

## AMPB15002500-50W-GaN-Wideband-Amplifier

### Product Features

- Frequency from 1500 ~2500MHz
- Class AB GaN design
- Instantaneous wide bandwidth
- 50 Ohm Input/Output impedance
- Small size and Light weight
- High reliability and Ruggedness

### Description

The AMPB15002500-50W GaN Wideband Amplifier is designed for general purpose. Operating frequency range is from 1500~2500MHz. Gallium Nitride on SiC Technology is used and attached on a copper sub carrier. Improved thermal handling by patented technology.

### Electrical Specifications @ $V_{DC}=32V$ , $T_C=50^{\circ}C$ , $50\Omega$ System

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency	MHz	1500	-	2500	$F_O$
Operating Bandwidth	MHz	-	1000	-	BW
Peak Output Power @CW Signal	W	-	50	-	$P_{SAT}$
Input Power	dBm	-	0±3	-	$P_{IN}$
Maximum Input Power @Without Damage	dBm	-	-	5	$P_{IN, MAX}$
Power Gain @Input Power 0dBm	dB	-	48	-	$G_P$
Gain Flatness @Input Power 0dBm	dB	-	-	±3	$\Delta G_P$
Efficiency	%	-	27	-	$E_{FF}$
Harmonics 1 to N @Output Power 50W	dBc	10	-	-	$H_N$
Spurious Level	dBc	60	-	-	Spur
Input VSWR	dB	-	-	2:1	VSWR
Output VSWR	dB	-	-	2:1	VSWR
Operating Voltage	V	-	32	-	$V_{DC}$
Current Consumption @Output Power 50W	A	-	6.5	-	$I_{DC}$

### Environmental Specifications

PARAMETER	UNIT	RATING	SYMBOL
Operating Case Temperature	$^{\circ}C$	-20 ~ 85	$T_C$
Storage Temperature	$^{\circ}C$	-40 ~ 105	$T_{STG}$
Relative Humidity(Non-condensing)	RH	95	%



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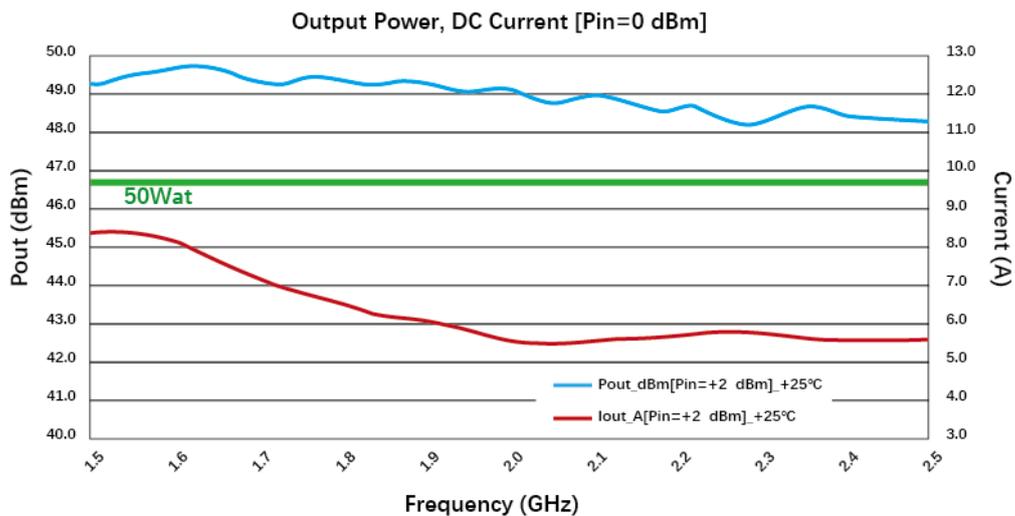
### Operating Voltages

PARAMETER	UNIT	NOMINAL VOLTAGE	VOLTAGE ACCURACY	SYMBOL
Operating Voltage	V	32	± 2%	V <sub>DC</sub>
HPA Enable Voltage	V	-		
Current Monitor Voltage	V	Output Voltage 1V@10A(0.1V/1A)		
Temp Monitor Voltage	V	Output Voltage 0.75V@25°C (1°C/0.01V)		

### Mechanical Specifications

PARAMETER	UNIT	TYP
Mass	kg	0.75
Dimension	mm	170 x 77 x 24.5 (Without Connectors)
RF Connector	-	SMA Female : RF Input
		N Female : RF Output
DC Connector	-	Through core capacitor, Male : Supply
Cooling		External Heat-sink Required

### Measurements Report:



TYPICALPERFORMANCE DATA[LoadVSWR 1.2],(Normaltemp.+25±3 )



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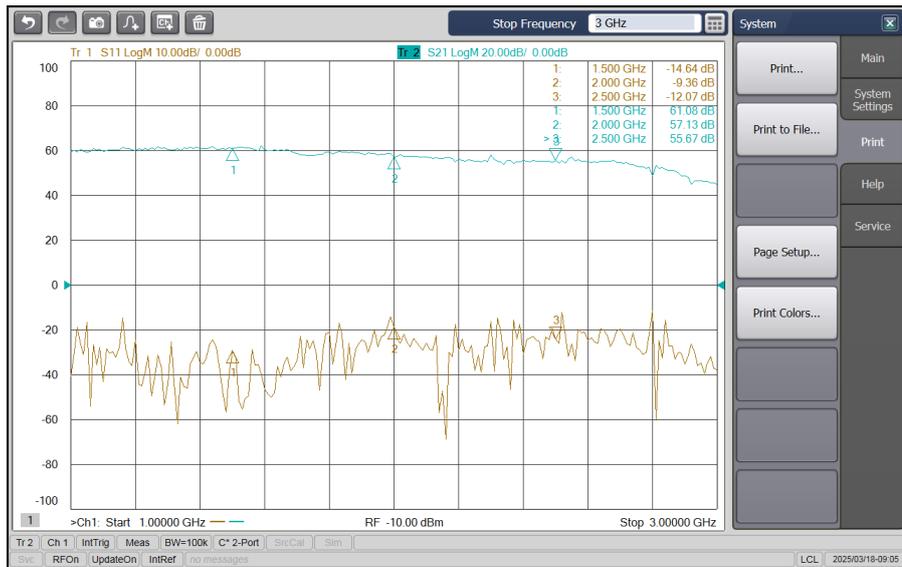
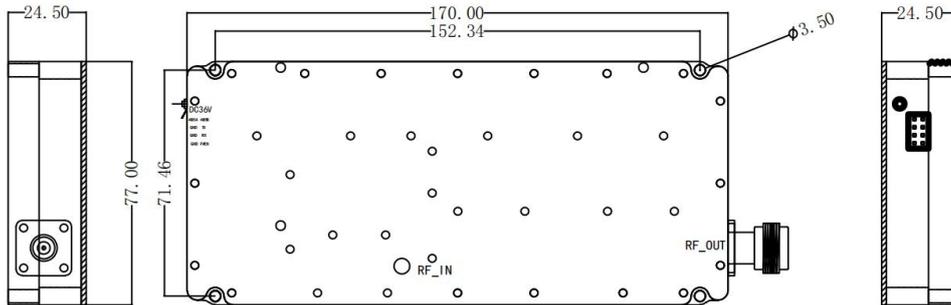


Figure:Input Return Loss@Pin=-20dBm(Ambient temp.+25±3 ,DC Voltage=28V,Load VSWR 1.2)

### Outline Drawing

\* Unit: mm[inch] | Tolerance ±0.2[.0078]



### Side View[3D]





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### Pin Description

Pin No	Description	Pin No	Description
A1	-	1	RS485
A2	-	2	External TTL
A3	-	3	External TTL
A4	-	4	NC
A5	-	5	RS485
A6	-	6	GND
A7	-	7	GND
A8	-	8	NC

### Pin view

[REDACTED]			
1	2	3	4
5	6	7	8

### Revision History

Part Number	Release Date	Version	Modification	Data Sheet Status
AMPB15002500-50W	2023.03.01	2.3.3.1	-	Preliminary