

# RA45900-5M WIDEBAND LINEAR AMPLIFIER 50 MHz – 750 MHz



The new linear amplifier for UHF band is excellent design made for special applications, lab testing, digital and analog RF applications. This board requires 12 VDC / 1.5A. The minimum driving input is 10 mW; required RF input is 25 mW. Rated output RF power is 5 W.

### New embedded solution for professionals, Wideband RF Amplifier

Rf-links has designed a new Ga-As FET RF Amplifier offers high gain, power, and efficiency in a compact package. The highly integrated RF Amplifier combines a DC feed/RF bias choke, DC blocking capacitors, and driver stage on a single design. This design minimizes the required number of external components and overall board space. No external bias needed, 4 connections required: input, ground, +vcc and output 50 ohms matched.

The (model number) Amplifier delivers up to 5W of power across a 50 MHz - 750 MHz instantaneous bandwidth with a supply voltage of 12.6 V at 1500 mA. Internally matched at the RF input and output, the (model number) amplifier achieves a high signal gain of 25dB and 38% power added efficiency (PAE).

#### **Features**

High PSAT: 34dBHigh power gain: 25High PAE: 38%

• Instantaneous bandwidth: 50 MHz -759 MHz

Supply voltage: VDD =12.6 V
4-lead wire connection only

## **Applications**

- Military jammers
- Commercial and military radar
- Power amplifier stage for wireless infrastructure
- Test and measurement equipment

Technical Specifications				
Frequency:	50-750 MHz			
Gain:	25 dBi			
DC power	9-12V			
Power Output:	5 W			
Current consumption:	1.6 A max			
Impedance: input-output	50 ohms			
Max. input power	50 mW			
VSWR:	< 1.5:1 avg.			
Connectors:	SMA			
Weight:	160 grams			
Length:	3.25 inch X 2.5 inch X 0.8 inch			
Operating temperature:	-40 ° C to 85 ° C			
RoHS compliant:	Yes			

## **TEST RESULTS**

FREQUENCY	POWER INPUT 1 (dBm)	POWER OUTPUT 1	POWER INPUT 2 (dBm)	POWER OUTPUT 2
50 MHz	0	1.65 W	15.00	2.65W
60 MHz	0	1.85 W	15.00	2.85 W
70 MHz	0	1.85 W	15.00	3.20 W
80 MHz	0	1.90 W	15.00	3.45 W
90 MHz	0	1.95 W	15.00	3.46W
100 MHz	0	2.00 W	15.00	3.44W
145 MHz	0	1.35 W	15.00	4.50 W
200 MHz	0	1.25W	15.00	4.88 W
250 MHz	0	1.12 W	15.00	5.15W
300 MHz	0	1.85 W	15.00	5.29 W
400 MHz	0	1.25 W	15.00	5.0 W
500 MHz	0	1.85 W	15.00	5.89 W
600 MHz	0	1.5 W	15.00	4.45 W
750 MHz	0	1.6 W	15.00	3.35 W

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