

LA 5 HF/VHF LINEAR AMPLIFIER



5 Watts of Linear RF Power From 50 kHz to 900 MHz For Industrial, Laboratory, Communication and Medical Applications.

FEATURING:

- 50 kHz to 900 MHz total
- 5 W Linear
- 8 W Saturated
- Linear Output of 2.5W with $h3 \leq -30$ dBc

INTRODUCTION

Amplifier Model LA 5 is a robust source of RF power for ultrasonic, laser modulation, RFI/EMI, plasma generation, laboratory and general industrial applications.

Featuring leading edge solid state design in all RF amplifier stages this unit provides everything for a reliable RF power delivery system. It reflects the ongoing T&C commitment to provide RF power products of the highest quality.

OPERATION

The LA 5 produces 5W of linear power over a frequency range from less than 50 kHz to more than 900 MHz, with low harmonic and intermodulation distortion. It operates over the entire frequency range without band switching or adjustments.

Gain is rated at 33 dB with a typical gain flatness of ± 1.5 dB.

The LA 5 is compatible with most signal and function generators, computer synthesizer cards and accurately reproduces all waveforms within its output and bandwidth limits.

The Forced-air cooling system and the internal power supply are designed to permit operation over a wide range of temperature and global AC line conditions.

The LA 5 is built to withstand a +10 dBm (2Vp-p) Input signal. The unit amplifies the inputs of AM, FM, SSB, pulse and other complex modulations with < -30 dBc (h3) harmonic distortion and output power stability.

GENERAL

T&C's products are designed to be reliable, compact and light in weight. The use of conservatively rated components ensures high reliability and eliminates the need for periodic retuning.

Class Of Operation

Class A

Frequency Of Operation

50 kHz to 700 MHz

700 to 900 MHz with - 1.5 dB drop

RF Power Output

8 W saturated up to 300 MHz

7 W sat., 300 to 400 MHz

6 W sat., 400 to 700 MHz

Gain

33 dB ± 1.5 dB

RF Input Drive

Typical range -10 dBm to +10 dBm

Input Drive Source

Signal or function generator, analog computer input capable

of up to 2 Vp-p @ 50 Ohm within amplifier output and bandwidth limits.

Input and Output Impedance

50 Ohm

Input VSWR

2:1 max

Output VSWR

3:1 max

Load Mismatch

All phase angles

Harmonic Level @ 2.5 W

Better than - 30 dBc for 3rd harmonic, any other > -30 dBc

RF Connectors

N Female: Front Panel

AC Power Source

100 - 120 VAC, 200 - 240 VAC
+/-10%, 47 - 63 Hz

AC Power Connection

IEC Standard Power Entry

Cooling

Forced air

Dimensions

H 95mm x W 480 mm x L 420mm
(3.75" x 19" x 16.5")

Weight : 4.2 kg, (9 lbs.)

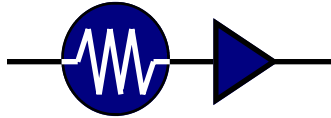
Mounting

Stand alone unit. Front Panel fits Rack Mount.

Environmental conditions

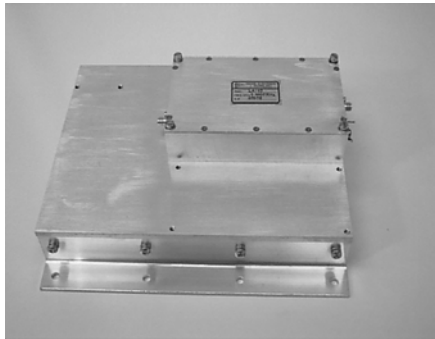
Temp: 0° to 35° C ambient air

Humidity: 80%



LA5M

HF/VHF LINEAR AMPLIFIER MODULE



5 Watts of Linear RF Power From 50 kHz to 900 MHz For Industrial, Laboratory, Communication and Medical Applications.

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- Linear Output of 2.5W with $h_{3\leq} -30$ dBc

Class Of Operation

Class A

Frequency Of Operation

50 kHz to 700 MHz,
700 to 900 MHz with -1.5 dB drop

RF Power Output

8 W saturated up to 300 MHz
7 W sat., 300 to 400 MHz
6 W sat., 400 to 700 MHz

Gain

33 dB \pm 1.5 dB

RF Input Drive

Typical range -10 dBm
to +10 dBm

Input Drive Source

Signal or function generator,
analog computer input capable
of up to 2 Vp-p @ 50 Ohm
within amplifier output and
bandwidth limits.

Input and Output Impedance

50 Ohm

Input VSWR

2:1 max

Output VSWR

3:1 max

Load Mismatch

All phase angles

Harmonic Level @ 2.5 W

Better than -30 dBc for 3rd
harmonic, any other > -30 dBc

RF Connectors

SMA Females

Power Source

28 VDC, 4A

Power Connection

RFI Filter Solder Lug

Cooling

Forced Air Required

Module Dimensions

(H 70 x W 208 x L 240) mm
(2.8" x 8.2" x 9.05")

Weight : ~ 1.8 kg, (4 lbs.)

Mounting

Right angle brackets with 7.4"
side to side hole pattern. 2.75"
between holes on bracket.

Environmental conditions

Temp: 0° to 35° C ambient air

Humidity: 80%

LA 5 Performance Chart

