

T&C

Power Conversion

LA 25 0.5 to 500 MHz LINEAR AMPLIFIER

T&C POWER CONVERSION

Linear RF Power For Industrial, Laboratory, Communication and Medical Applications.

FEATURING:

- **0.5 MHz to 500MHz**
- **25W Linear**
- **50 W Saturated**
- **Linear Output of 12.5 W with h3≤ -30 dBc**

INTRODUCTION

Amplifier Model LA 25 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 25 produces 25 W of linear power over a frequency range from less than 0.5 MHz to more than 500 MHz, with low harmonic and intermodulation distortion. It operates over the entire frequency range without band switching or adjustments. Gain is rated at 44 dB with a typical gain flatness of ±1 dB.

The LA 25 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 25 is built to endure a +3 dBm (1Vp-p) input. The unit amplifies AM, FM, SSB, pulse and other complex modulations with <-25 dBc (h3) harmonic distortion and exceptional 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 calibration.

Class Of Operation
Class A

Frequency Of Operation
0.5 MHz to 500 MHz

RF Power Output
50 W saturated

Small Signal Gain
44 dB
±1 dB typical, ±1.5 dB max.

RF Input Drive
Typically -20 dBm to +5 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 @ 12.5 Watts
Better than - 30 dBc for all harmonics,

RF Connectors
N Female: Front Panel

Typical Third Order Intercept
+58 dBm

AC Power Source
100 - 120 VAC, 200 - 240 VAC
+/-10%, 50/60 Hz

AC Power Connection
IEC Standard Power Entry

Cooling
Forced air

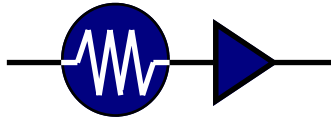
Dimensions
H 95mm x W 480 mm x L 420mm
(3.75" x 19" x 16.5")

Weight
7 kg, (15 lbs.)

Mounting
Stand alone unit. Front Panel fits 19" Rack Mount, 3 Units high.

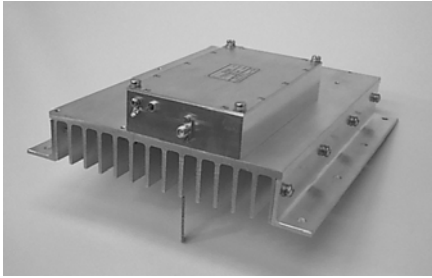
Environmental conditions
Temp: 0° to 35° C ambient air
Humidity: 80%

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LA 25 M

0.5 to 500 MHz LINEAR AMPLIFIER MODULE



Linear RF Power to drive industrial, Laboratory, Communication and Medical Applications.

FEATURING:

- 0.5 MHz to 550 MHz
- 25 W Linear
- 50 W Saturated
- Linear Output of 12.5 Watts with $h_{3\leq} -25$ dBc

Class Of Operation
Class A

Frequency Of Operation
0.5 MHz to 500 MHz

RF Power Output
50 W saturated

Small Signal Gain
44 dB
 ± 1 dB typical, ± 1.5 dB max

RF Input Drive
Typical range -20 dBm to 5 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 @ 12.5 W
Better then - 25 dBc for 3rd harmonic, any other > -30 dBc

RF Connectors
SMA Females

Power Source
28 VDC, 9A

AC Power Connection
RFI Filter solder stud

Cooling
Forced Air Required

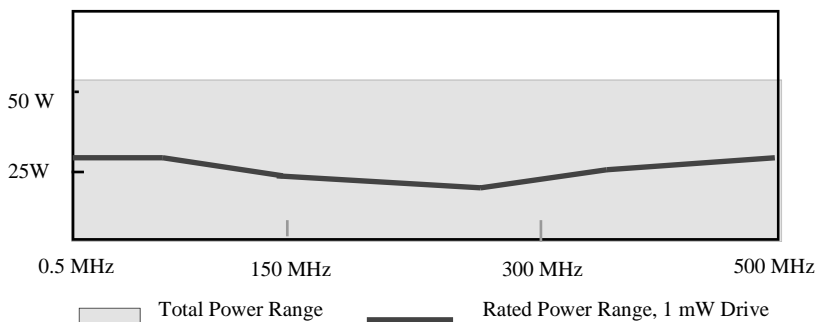
Module Dimensions
(H 70 x W 208 x L 240) mm
(2.8" x 8.2" x 9.05")

Weight
~ 2 kg, (4.4 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 25 Performance Chart



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