

# LA 25

## 0.5 to 500 MHz LINEAR AMPLIFIER



### 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  $h_3 \leq -25$  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  $\pm 1$  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 +5 dBm (2Vp-p) input. The unit amplifies AM, FM, SSB, pulse and other complex modulations with  $< -25$  dBc ( $h_3$ ) 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  $\pm 1$  dB

**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%, 47 - 63 Hz

**AC Power Connection**  
IEC Standard Power Entry

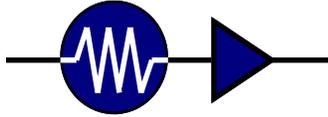
**Cooling**  
Forced air

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

**Weight**  
7 kg, (15 lbs.)

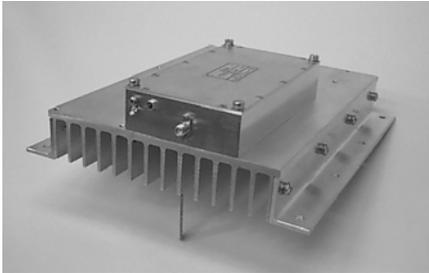
**Mounting**  
Stand alone unit. Front Panel fits 19" Rack Mount, 3 Units high.

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



# LA 25 M

## 0.5 to 500 MHz LINEAR AMPLIFIER MODULE



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

### FEATURING:

- 0.3 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  $\pm$ 1 dB

### 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 than -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**

