

# LA-100L

## 0.5 to 350 MHz LINEAR AMPLIFIER-PRELIMINARY

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

**FEATURING:**

- 500 kHz to 350 MHz min
- 100 W Linear
- 150 W Saturated
- Up to 125W in 5 to 200 MHz range



### INTRODUCTION

Amplifier Model LA-100L 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-100L produces up to 100 W of linear power over a frequency range of 500 kHz to more than 350 MHz, with low harmonic and intermodulation distortion. Small signal gain is rated at 50 dB with a typical gain flatness of  $\pm 1.5$  dB and  $\pm 2$  dB for the large signal operation. In optional AGC mode its output will hold at  $\pm 0.7$  dB.

The LA-100L is compatible with most signal and function generators, computer synthesizer cards and accurately reproduces all waveforms within its output and bandwidth limits.

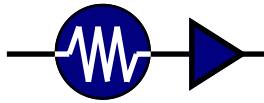
The forced-air cooling system and the internal power supply are designed to permit operation over a wide range of temperature and global AC line conditions.

The LA-100L is built to tolerate a +2 dBm input. This unit amplifies AM, FM, SSB, pulse and other complex modulations with  $< -25$  dBc (h3) harmonic distortion and exceptional power stability.

### RELIABILITY

T&C amplifiers and generators 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.

LA-100L's Microprocessor Control System protects its output against overload, RF input overdrive and protects against over-temperature. The advanced circuitry allows measurements of forward power (FWD) and reflected power (REV) from the load as well as allowing the setting of custom levels of FWD and REV powers to protect the RF load in the case of unwanted mismatch.



# LA-100L Specifications

Output Power	100W
Output Power @ 500 kHz , 350 MHz	≥100W
Output Power @ 1dB gain compression @ 5 MHz to 200 MHz	≥125W
Frequency Range	500 kHz to 350 MHz Up to 500 MHz with gain drop -2dB
Signal Gain	50 dB
Small Signal Gain Flatness	±1.5dB typ., ±2dB max
Flatness @ AGC switch on	±0.7dB
Input Impedance/ VSWR	100W nominal 2:1 max 1.5 typ.
Output Impedance/ VSWR	50 Ohm nominal < 4:1 max
Mismatch Tolerance	5:1 max
Connectors Input/Output	N female
Supply	100 to 120 and 200 to 240VAC, +/- 10%, 47 to 63 Hz
Power Consumption	350W
Cooling	Forced air
Microprocessor Control System	Protected against over load  Protected against RF input overdrive  Protected against over-temperature  Enable to measure forwarded power and reflected power from the load
Dimensions (H x W x D)	135mm x 483mm x 370mm 5.5" x 19" x 16"
Weight	18 kg
Interface	RS232

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