



T&C
Power Conversion

LA 10

3 to 1000 MHz LINEAR AMPLIFIER

T&C POWER CONVERSION

10 Watts of Linear RF Power From 3 MHz to 1 GHz For Industrial, Laboratory, Communication and Medical Applications.

FEATURING:

- **3 MHz to 1000 MHz**
- **10 W Linear**
- **15 W Saturated**
- **Linear Output of 10 W with $h3 \leq -25$ dBc**

Class Of Operation
Class A

Frequency Of Operation
3 MHz to 1000 MHz

RF Power Output
15 W saturated

Gain
40 dB ± 2 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

Power Supply Front Panel view



INTRODUCTION

Amplifier Model LA 10 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 10 produces 10 Watts of linear power over a frequency range from less than 3 MHz to more than 1000 MHz, with low harmonic and intermodulation distortion. It operates over the entire frequency range without band switching or adjustments.

Gain is rated at 40 dB with a typical gain flatness of ± 2 dB.

The LA 10 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 10 is built to withstand a +5 dBm (2Vp-p) Input signal. The unit amplifies the inputs of AM, FM, SSB, pulse and other complex modulations with < -25 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 calibration.

Typical Third Order Intercept
+ 54 dBm

Harmonic Level @ 10 W
Better than - 25 dBc for 3rd harmonic, any other > -30 dBc

RF Connectors
N Female: Front Panel

AC Power Source
100 - 120 VAC, 200 - 240 VAC
 $\pm 10\%$, 47 - 63 Hz

AC Power Connection
IEC Standard Power Entry

Cooling

Forced air

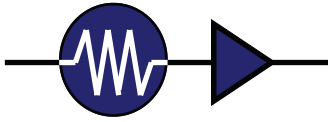
Dimensions
H 95mm x W 480 mm x L 420mm
(3.75" x 19" x 16.5")

Weight
4.2 kg, (9 lbs.)

Mounting
Stand alone unit. Front Panel fits Rack Mount.

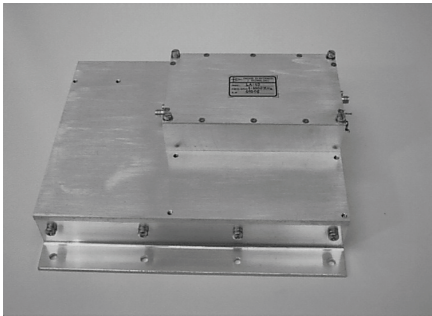
Environmental conditions
Temp: 0° to 35° C ambient air
Humidity: 80%

110 Halstead Street
Rochester, New York 14610
USA
Tel: 585 482 5551
Fax: 585 482 8487
www.tcpowerconversion.com
sales@tcpowerconversion.com



LA 10 M

3 to 1000 MHz LINEAR AMPLIFIER MODULE



10 Watts of Linear RF Power From 3 MHz to 1000 MHz For Industrial, Laboratory, Communication and Medical Applications.

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Input and Output Impedance
50 Ohm

Input VSWR
2:1 max

Output VSWR
3:1 max

Load Mismatch
All phase angles

Harmonic Level @ 10 W
Better then - 25 dBc for 3rd harmonic, any other > -30 dBc

RF Connectors
SMA Females

Power Source
28 VDC, 4A

Power Connection
RFI Filter solder stud

Cooling
Forced Air Required

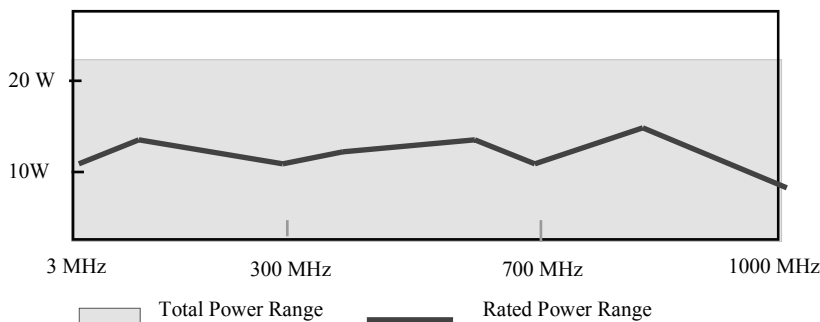
Module Dimensions
(H 70 x W 208 x L 240) mm
(2.8" x 8.2" x 9.05")

Weight
~ 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 10M Performance Chart



T&C Power Conversion, Inc.
110 Halstead Street, Suite 7
Rochester, NY 14610, USA
Tel: 585-482-5551
Fax: 585-482-8487
www.tcpowerconversion.com
sales@tcpowerconversion.com

Sales Representative:

