



3100LA POWER AMPLIFIER

100 Watts
RF Power
For:

- Ultrasonic
- Testing
- Laboratory use

- 250 KHz to 150 MHz
- Instantaneous Bandwidth
- 100 W 1dB Compression
- Solid State
- Air Cooled



The 3100LA Amplifier is a rugged source of RF power, useful for RFI/EMI, HF and VHF transmitters, plasma equipment, nuclear accelerators and general laboratory applications. The 3100LA represents E&I's commitment to providing RF power amplifiers of the highest quality, durability and ruggedness.

FLEXIBILITY:

The 3100LA produces 100 Watts of class A linear power output over the entire frequency range from 250 KHz to 150 MHz. It has very low harmonic distortion along with low IMD products. Operation over the band is achieved without the need for any band switching or indeed any adjustments. The power gain is rated at 50 dB with a typical gain flatness of +/- 1.5 dB

The 3100LA is compatible with most signal generators, frequency synthesizers, sweep generators and other laboratory signal sources. It accurately reproduces all waveforms within its power and frequency ranges: AM, FM, SSB, pulsed and other complex modulation schemes.

RUGGEDNESS:

The 3100LA is built to withstand a +13 dBm input (1.0 Volt RMS) for any VSWR load condition. The internal switched mode power supply is very conservatively rated, in order to facilitate operation over a large range of line conditions and temperatures. The forced air cooling provides for low internal temperatures, providing long term reliability. The RF power is delivered by rugged DMoS FETs, de-rated to provide for excellent MTBF figures.

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Class of Operation

Class A

Frequency Range

250 KHz to 150 MHz

Rated Power Output

100 Watts (P1dB)

Saturated Power Output

250 KHz to 150 MHz > 125 W
1 MHz to 100 MHz > 150 W

Gain

50 dB (nominal)

Gain Flatness

+/- 1.5 dB

Input Power for rated Pout

1 mW

Input Impedance / VSWR

50Ω / 1.5:1 maximum

Output Impedance / VSWR

50Ω / 1.25:1 maximum

Harmonic Level

< -25dBc @ 75 Watts

Ruggedness

∞:1 VSWR

Stability

Unconditional into any passive load.

Protection

Input: Unit will withstand input signal of +13 dBm without damage (1.0 V rms) max. and infinite load VSWR.

Front Panel Meter

Front panel indicates forward and reflected power.

Third Order Intercept Point

IP3 ~ 59 dBm

AC Input

100-240 VAC 47-63 Hz
12 Amps max @ 115 VAC
6.5 Amps @ 240 V

Temperature Range

0 – 40 C

Cooling

Forced air.

Weight

52 lbs (23.6 Kg)

Dimensions

(H x W x D)
8.6" x 16.7" x 20.1"
218.2 mm x 424.4 mm x 511 mm



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