310 L

ENI BROADBAND POWER AMPLIFIER

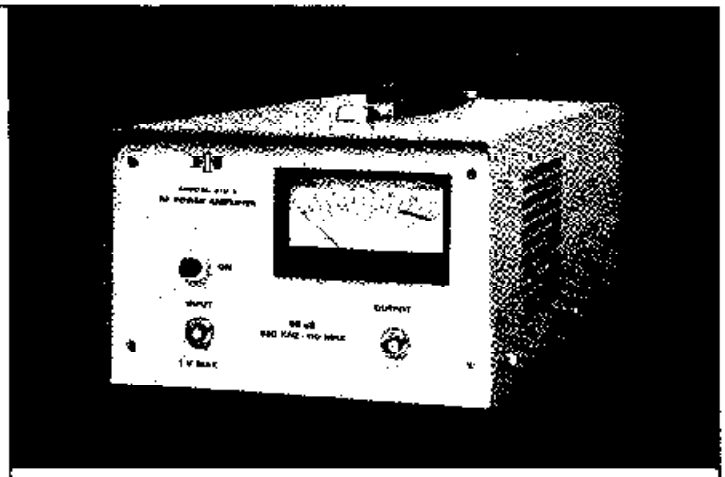
DESCRIPTION

The ENI Model 310L RF power amplifier is capable of providing more than 10 watts of linear output power over the frequency range of 250 kHz to 110 MHz.

A flat 50 dB gain (± 1.5 dB) permits this completely solid state instrument to be driven by any laboratory signal generator, synthesizer or transmitter drive source. The amplifier operates over its entire frequency range without bandswitching or other adjustments.

The Model 310L is an extremely versatile source of RF power. Its output is electrically equivalent to an open circuit voltage source in series with a 50 ohm output resistance and may be connected to any load impedance, without regard to match. Unconditional stability and instantaneous failsafe provisions in the unit provide absolute protection from damage due to transient and overload conditions.

Output RF voltage, as well a power output into 50 ohms, is monitored by a front panel meter. An integral power supply permits operation directly from an AC line.



- *All Solid State*
- *Flat 250 KHz to 110 MHz*
- *150 KHz to 150 MHz Usable Coverage*
- *10 Watts Linear Output*
- *No Bandswitching*
- *Works into Any Load*
- *Failsafe*
- *Metered Output*

SPECIFICATIONS

Frequency Coverage:	250 kHz to 110 MHz without tuning.
Maximum Power Output:	10 watts CW and PEP (Peak Envelope Power) at rated distortion; higher power output at increased distortion.
Gain:	50 dB nominal.
Gain Variation:	Less than ±1 dB over the entire frequency range at power outputs below 2 watts. Less than ±1.5 dB for power outputs between 2 and 10 watts.
Total Harmonic Distortion:	All odd harmonics more than 25 dB down at full power output, lower at reduced power output.
2nd Order Distortion:	More than 30 dB down at full power output.
3rd Order Intermodulation Distortion:	More than 30 dB down (typical) from 0.25 to 40 MHz; more than 25 dB down (typical) from 40 to 110 MHz at full power.
Typical 3rd Order Intermodulation Intercept Point:	+49 dBM.
Input-Output Impedance:	50 ohms.
Input VSWR:	Less than 1.3
Output VSWR:	Less than 2.0
Noise Figure:	Less than 12 dB.
Stability:	Unconditionally stable; unit will not oscillate for any condition of load and source impedances.
Protection:	Unit will withstand a +25 dB overdrive (input signal of +15 dBM) for all output load conditions, including short and open circuit loads.
Output Metering:	Average reading voltmeter, calibrated in RMS volts for a sine wave, with an accuracy of ±3% of full scale (0 — 30 volts); also calibrated in watts into 50 ohms (0 — 18 watts).
Power Requirements:	115-230 V ac ±10%, 50-60 Hz, 150 watts.
Operating Temperature:	0° to +50°C.
Size:	6 x 8½ x 15 in. 15.2 x 21.6 x 38.1 cm
Weight:	20 lbs. 9.1 kg
Input and Output Connectors:	BNC

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