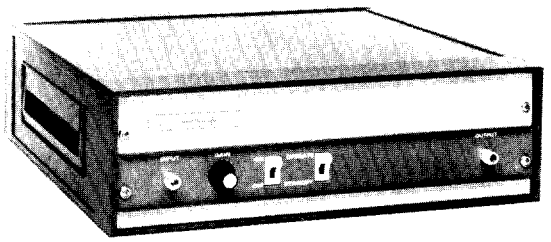
AMPLIFIER RESEARCH

Model 30L/40L

30/40 Watt

1-250/1-240 MHz

Linear Broadband Amplifiers



FEATURES

- INSTANTANEOUS BANDWIDTH
- ADJUSTABLE OUTPUT
- UNCONDITIONALLY STABLE
- LOW HARMONIC DISTORTION
- REGULATED POWER SUPPLY
- RUGGED CONSTRUCTION
- LIGHTWEIGHT

DESCRIPTION

The Model 30L and 40L are inexpensive, self-contained broadband units designed for laboratory applications requiring instantaneous bandwidth, high gain, and moderate power output. When used with a frequency swept signal source, the 30L provides 30 watts of swept power output from 1-250 MHz and the 40L provides 40 watts of swept power from 1-240 MHz. Up to 80 watts may be achieved with increased distortion over part of the band (See charts under specifications).
In addition to its outstanding frequency and power capabilities, these two amplifiers employ the latest design technology in their all-solid-state, low power stages and vacuum tube final amplifier. Unique circuitry developed by Amplifier Research permits operation into any load impedance without shutdown or damage. A continuously variable input attenuator permits the operator to adjust the output level as desired. Housed in stylish, contemporary enclosures, the 30L and 40L weigh considerably less than competitive equipment with similar power levels. All operating controls are functionally grouped on the front panel to simplify operator use. These include modern, lighted switches for the command functions and a control for setting the output power of the amplifier.

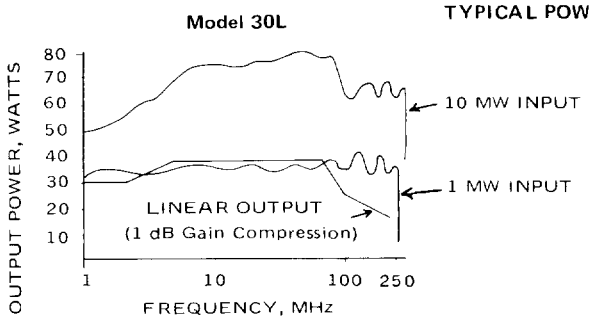
APPLICATIONS

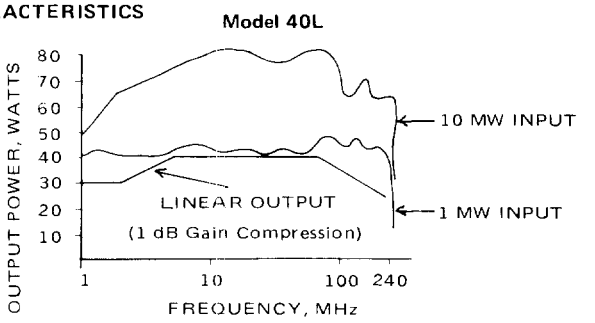
- **EMI Susceptibility Testing**
- **General Laboratory Use**
- **Antenna and Component Testing**
- **Equipment Calibration**
- **Ultrasonic Transducer Driving**
- **Driver for Frequency Multipliers and High Power Amplifiers**

SPECIFICATIONS

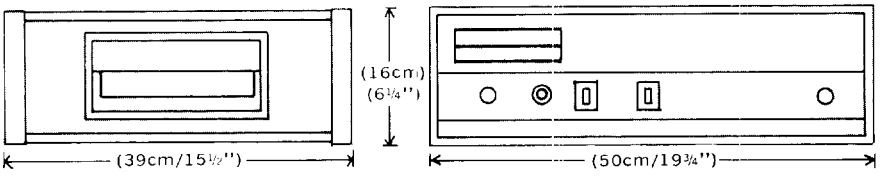
	MODEL 30L	MODEL 40L
POWER OUTPUT	30 watts cw minimum into 50 ohms	40 watts cw minimum into 50 ohms
FREQUENCY RESPONSE	1 to 250 MHz instantaneously	1 to 240 MHz instantaneously
FLATNESS	± 1.5 dB maximum ± 1.0 dB typical	± 1.5 dB maximum ± 1.0 dB typical
INPUT ATTENUATOR	Continuously adjustable over greater than 20 dB range	Continuously adjustable over greater than 20 dB range
POWER GAIN	45 dB minimum	45 dB minimum
OUTPUT IMPEDANCE	50 ohms, VSWR 2.0:1 maximum	50 ohms, VSWR 2.0:1 maximum
INPUT IMPEDANCE	50 ohms, VSWR 1.5:1 maximum	50 ohms, VSWR 1.5:1 maximum
HARMONIC DISTORTION	For fundamental frequencies below 130 MHz, not less than 18 dB below fundamental at 30 watt output. For fundamental frequencies above 130 MHz, not less than 30 dB below fundamental at 30 watt output.	For fundamental frequencies below 130 MHz, not less than 17 dB below fundamental at 40 watt output. For fundamental frequencies above 130 MHz, not less than 30 dB below fundamental at 40 watt output.
MISMATCH TOLERANCE	Unconditionally stable; will operate without damage regardless of magnitude and phase of source and load impedance.	Unconditionally stable; will operate without damage regardless of magnitude and phase of source and load impedance.
PRIMARY POWER	120 VAC, 50/60 Hz, 800 watts	120 VAC, 50/60 Hz, 800 watts
CONNECTORS	Type N, female	Type N, female
WEIGHT	43 lb	43 lb
SIZE	See outline drawing	See outline drawing

TYPICAL POWER OUTPUT CHARACTERISTICS





OUTLINE DIMENSIONS



A 220 VAC, 50 Hz version is available for foreign applications at no extra cost if specified with the order. Some such applications may require use of an isolation transformer. If in doubt, contact factory.

For a complete analysis of your design needs, write or call:

AMPLIFIER RESEARCH

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