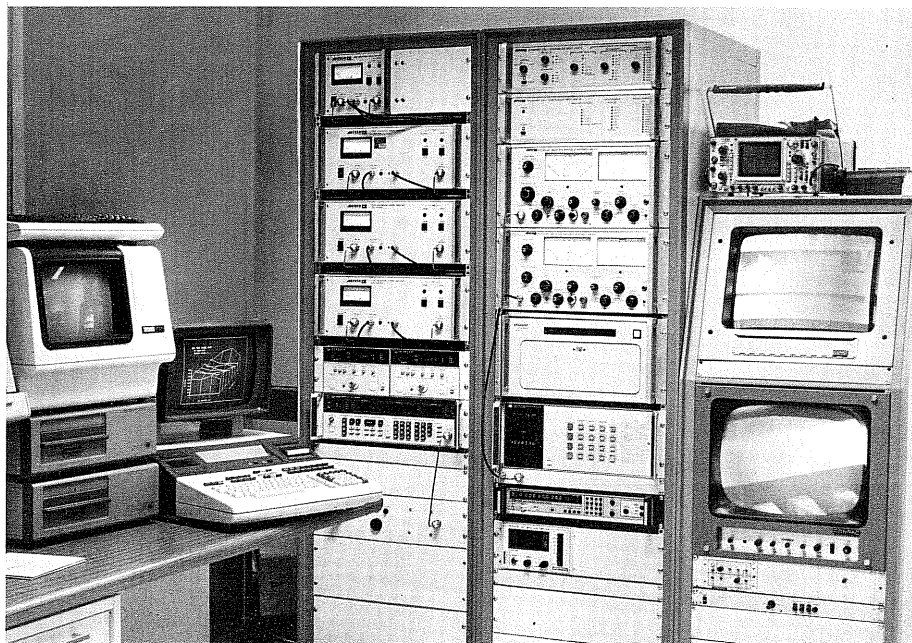


# Eaton

## Solid State Broadband Linear Power Amplifiers

**Extremely versatile line of power amplifiers developed expressly for...**

- EMS
- Research & Development
- High Power Component/System Testing
- Wattmeter Calibration
- Communications
- NMR Spectroscopy
- Laser Modulation
- ATE Systems
- OEM Applications



Eaton Broadband Amplifiers in use as a source for susceptibility testing systems.

### **Electromagnetic Susceptibility Testing**

Susceptibility is a term given to a particular type of testing that will define a level of immunity of a particular device to a high intensity RF field.

Eaton Broadband Amplifiers are universally used as a source for EMC susceptibility testing. Sufficient power is available to satisfy virtually all of the currently specified field intensities. The amplifiers can be used to provide a high level of CW, AM, FM and pulse modulation signals.

It is difficult to find a modern industry that has not come to "the age of electronics." Microelectronics has found its

way into a majority of our labor saving control and safety systems. It is becoming increasingly important to design new electronic devices that will not be affected by the high RF energy fields that are present in our everyday lives like high power radar and communications equipment. The broadband amplifiers serve several markets relative to their needs to qualify electronic systems and components to be immune to the effects of an RF field.

### **Laboratory R & D**

The high technology frontier has been a proving ground for Eaton Broadband Power Amplifiers. They have played an active role in many R & D type applications, in both universities and private research. Lasers, plasma, ultrasonics, NMR and radiological health effects are only a few areas in which these amplifiers have been specified and successfully employed.

Power level stability and spectral purity are essential for laboratory applications. Our performance and reliability have been the keys to success.

### **High Power Component Testing**

Under high power conditions components can break down and have their characteristics badly degraded or totally fail. Broadband amplifiers are useful to component groups who must evaluate their designs and products.

A multitude of devices exist that require high power RF signals for testing. Switches, filters, ferrite devices, couplers, multipliers, transistors, antennas and even amplifiers require RF power testing. Eaton Broadband Amplifiers are suited by design for all of these applications.

# Eaton

## Broadband Linear Power Amplifiers

Models	Features	Frequency Range	Rated Power Output into 50 ohms	1 dB Compression IMD – 25 dBc	Total Harmonic Distortion	Input Required (50 ohms)
<b>5001</b>	<ul style="list-style-type: none"> <li>• Up to 80 Watts Available Power</li> <li>• Directional True Power Wattmeter</li> <li>• Instantaneous Bandwidth over 10 kHz to 10 MHz Range</li> <li>• Covers Low Frequency Limit for MIL-STD-461</li> <li>• ALC Loop Capability</li> <li>• Low Noise Figure</li> <li>• Completely Solid State</li> </ul>	10 kHz to 10 MHz	50 watts	40 watts	25 dB down @ 1 dB comp.	10 mW maximum input for rated output power
<b>1020, 2020B, 5020B, 2C20</b>	<ul style="list-style-type: none"> <li>• Active VSWR, Power Protection</li> <li>• Directional True Power Wattmeter</li> <li>• ALC Leveling Capability</li> <li>• Instantaneous Bandwidth over 1 to 200 MHz Range</li> <li>• Low Noise Figure</li> <li>• Completely Solid State</li> </ul>	1 to 200 MHz	<b>1020</b> 10 watts <b>2020B</b> 25 watts <b>5020B</b> 50 watts <b>2C20</b> 200 watts	10 watts 20 watts 40 watts 140 watts	25 db down @ 1 dB comp.	1 mW maximum input for rated output power
<b>1052, 2052B, 3552B, 2C52</b>	<ul style="list-style-type: none"> <li>• Active VSWR Power Protection</li> <li>• Directional True Power Wattmeter</li> <li>• ALC Leveling Capability</li> <li>• Instantaneous Bandwidth over 100 to 512 MHz Range</li> <li>• Covers Mobile and MIL Communications Bands</li> <li>• Low Noise Figure</li> <li>• Completely Solid State</li> </ul>	100 to 512 MHz	<b>1052</b> 10 watts <b>2052B</b> 25 watts <b>3552B</b> 50 watts <b>2C52</b> 200 watts	10 watts 15 watts 30 watts 100 watts		
<b>15100B, 1C100</b>	<ul style="list-style-type: none"> <li>• Active VSWR Power Protection</li> <li>• Directional True Power Wattmeter</li> <li>• ALC Leveling Capability</li> <li>• Instantaneous Bandwidth over 500-1000 MHz Range</li> <li>• Low Noise Figure</li> <li>• Completely Solid State</li> </ul>	500 to 1000 MHz	<b>15100B</b> 25 watts <b>1C100</b> 100 watts	15 watts 50 watts		

Note: All units: 0-50°C Operating Temperature. Models 5001, 1020 and 1052 do not have protection circuits.

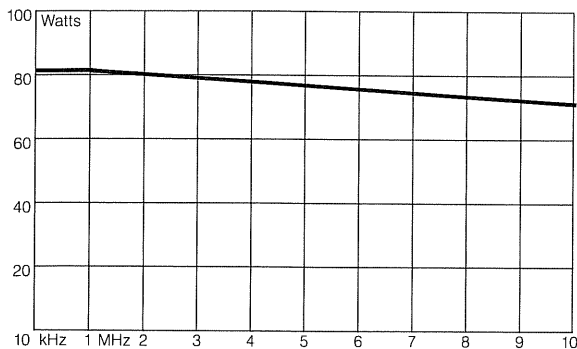
Rack Mount Kits: 1940 = 1/2 rack mount for models 5001, 1020, 1052

1941 = wide body rack mount

1942 = slides for wide body units (includes 1941 rack mount)

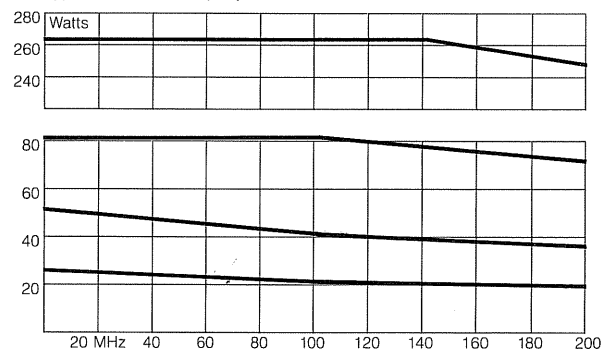
### Model 5001

Typical maximum output power into a 50 ohm load



### Models 1020, 2020B, 5020B, 2C20

Typical maximum output power into a 50 ohm load

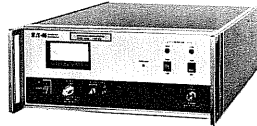




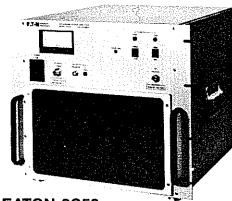
EATON 5001



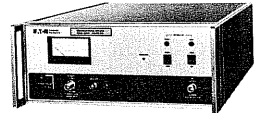
EATON 1C100



EATON 5020B



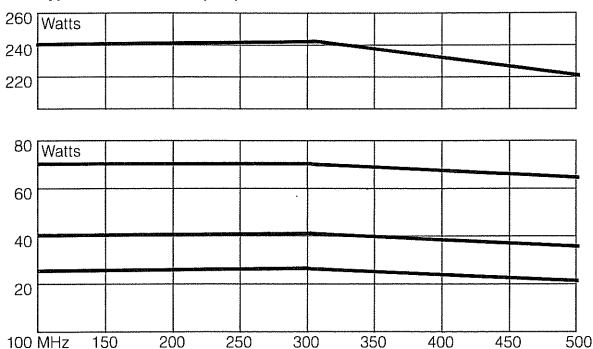
EATON 2C52



EATON 2020B

Input VSWR	Gain Variation	Noise Figure (Typical)	Protection	Power Requirements	Size (H W D)	Weight
2:1	±1.5 dB	10 dB	withstand 10 dB overdrive with 50 watts output, load VSWR of 1.5:1 No damage @ 50 watt output into any load	115 / 230 VAC. ±10% 50 / 60 Hz. 500 watts	7 x 8.5 x 17.25 inches (17.78 x 21.59 x 43.81 cm)	43 lbs. (19.5 kg)
1.5:1	±1.5 dB (2C20: ±2.5 dB)	11 dB	<ul style="list-style-type: none"> <li>• automatic thermal shutdown with reset.</li> <li>• active power circuit protects against excessive VSWR, even during infinite output VSWR &amp; simultaneous input overdrive</li> </ul>	115 / 230 VAC. ±10% 50 / 60 Hz. <b>1020</b> 125 watts <b>2020B</b> 350 watts <b>5020B</b> 500 watts <b>2C20</b> 2000 watts. 220 VAC only	<b>1020</b> 7 x 8.5 x 17.25 inches (17.78 x 21.59 x 43.81 cm) <b>2020B</b> <b>5020B</b> 7 x 17 x 17.25 inches (17.78 x 43.18 x 43.81 cm) <b>2C20</b> 15.75 x 19 x 19 inches (40.1 x 48.3 x 48.3 cm)	22 lbs (10 kg) 43 lbs. (19.5 kg) 97 lbs. (44 kg)
2:1	±2 dB (2C52: ±3 dB)	14 dB		115 / 230 VAC. ±10% 50 / 60 Hz. <b>1052</b> 200 watts <b>2052B</b> 400 watts <b>3552B</b> 500 watts <b>2C52</b> 2000 watts. 220 VAC only	<b>1052</b> 7 x 8.5 x 17.25 inches (17.78 x 21.59 x 43.81 cm) <b>2052B</b> <b>3552B</b> 7 x 17 x 17.25 inches (17.78 x 43.18 x 43.81 cm) <b>2C52</b> 15.75 x 19 x 19 inches (40.1 x 48.3 x 48.3 cm)	22 lbs (10 kg) 43 lbs. (19.5 kg) 97 lbs. (44 kg)
3:1	±2 dB (1C100: ±3 dB)	15 dB		115 / 230 VAC. ±10% 50 / 60 Hz. <b>15100B</b> 200 watts <b>1C100</b> 2000 watts 220 VAC only	<b>15100B</b> 7 x 17 x 17.25 inches (17.78 x 43.18 x 43.81 cm) <b>1C100</b> 15.75 x 19 x 19 inches (40.1 x 48.3 x 48.3 cm)	43 lbs. (19.5 kg) 97 lbs. (44 kg)

**Models 1052, 2052B, 3552B, 2C52**  
Typical maximum output power into 50 ohm load



**Models 15100B, 1C100**  
Typical maximum output power into a 50 ohm load

