



160 School House Road, Souderton, PA 18964-9990 USA  
Phone 215-723-8181 • FAX 215-723-5688

**MODEL 700A1**  
**700 WATTS CW**  
**10 kHz - 1 MHz**

**The Model 700A1 Power Amplifier is completely solid state and contains no mechanical circuit breakers or relays. Designed for severe industrial applications, the model 700A1 amplifier is protected from damage which might be caused by excessive VSWR, high instantaneous line current, excessive output power or over-temperature operation. A built-in time delay and zero-crossing turn-on reduce current inrush to prolong component life. Power supply voltage regulation is used to remove noise and output fluctuations.**

**A directional watt meter and front panel selector switch provide convenient measurement of the forward power from the amplifier and reverse power reflected by the load. A non-linear meter scale allows sensitive tuning of the load simply by adjusting for minimum reflected power. A rear panel switch also eases matching problems by selecting transformer taps to change the output impedance.**

**The model 700A1 cooling is provided by self-contained fans. Air is drawn in through filtered inlets to protect the circuitry from exposure to excessively dirty environments which may be encountered in industrial applications. All sub-assemblies are plug-in and can be readily removed for maintenance and repair.**

**The model 700A1 is complete with a built-in power supply, regulators, power meter and protection circuitry. It is normally supplied in a handsome bench top cabinet with rack mounting available as an option. The model 700A1 is designed for 120 VAC only. Any other voltage used must be transformed to 120 VAC.**

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE REV1291**

## **SPECIFICATIONS**

### **Model 700A1**

|   |  |
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| <b>POWER OUTPUT, CW</b> .....                   | <b>700 watts minimum 150 kHz - 600 kHz</b><br><b>500 watts minimum 10 kHz - 1.0 MHz</b><br><b>250 watts minimum 8 kHz - 2.0 MHz</b>  |
| <b>POWER OUTPUT, CW LINEAR</b> .....            | <b>250 watts minimum at less than</b><br><b>1.0 dB gain compression</b>  |
| <b>FLATNESS</b> .....                           | <b>±1.5 dB maximum</b><br><b>±1.0 dB typical</b>   |
| <b>FREQUENCY RESPONSE</b> .....                 | <b>10 kHz - 1 MHz instantaneously</b>  |
| <b>GAIN (at maximum setting)</b> .....          | <b>60 dB minimum</b>   |
| <b>GAIN ADJUSTMENT (continuous range)</b> ..... | <b>18 dB minimum</b>   |
| <b>INPUT IMPEDANCE</b> .....                    | <b>50 ohms nominal</b>   |
| <b>OUTPUT IMPEDANCE (switch select)</b> .....   | <b>12.5, 25, 50, 100, 150, 200, 400, 600,</b><br><b>1000 ohms nominal</b>  |
| <b>MISMATCH TOLERANCE</b> .....                 | <b>Will operate without damage, or oscillation with</b><br><b>any magnitude an phase of source and load</b><br><b>impedance up to 200 watt output. At higher</b><br><b>power levels shutdown will occur when reflected</b><br><b>power exceeds 200 watts</b> |
| <b>MODULATION CAPABILITY</b> .....              | <b>Will faithfully reproduce AM, FM, or pulse</b><br><b>modulation appearing on the input signal</b>   |
| <b>HARMONIC DISTORTION</b> .....                | <b>Total harmonic distortion is less than 8%</b><br><b>at 300 watts</b>  |
| <b>RF POWER METER</b> .....                     | <b>Directional power meter allows separate</b><br><b>measurement of forward and reflected power</b>  |
| <b>PRIMARY POWER</b> .....                      | <b>120 ±5% VAC</b><br><b>50/60 Hz, single phase</b><br><b>1800 watts maximum</b>   |
| <b>RF CONNECTORS</b> .....                      | <b>Type BNC female</b>   |
| <b>COOLING</b> .....                            | <b>Forced air (self-contained fans)</b>  |
| <b>WEIGHT</b> .....                             | <b>17 kg (37 lb)</b>   |
| <b>SIZE (WxHxD)</b> .....                       | <b>43.9 x 17.8 x 45.7 cm</b><br><b>17.3 x 7.0 x 18.0 in</b>  |

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