

Model 170

Microwave Amplifier System



The Model 170 Microwave Amplifier System consists of three amplifiers, 1 to 2 GHz, 2 to 7 GHz, and 7 to 18 GHz, and is designed to provide 50 Watts of CW output power over the frequency range of 1 to 12 GHz and 45 Watts over the 12 to 18 GHz frequency range.

Using the IEEE-488 compatible interface, the amplifiers can be rapidly switched allowing virtual uninterrupted frequency coverage over the 1 to 12 or 1 to 18 GHz frequency range. Harmonic filters are electronically selected so that a harmonic rejection of -20 dBc is maintained over the entire frequency range.

FEATURES:

- Frequency 1-12 GHz or 1-18 GHz Octave / Multioctave
- -20 dBc Harmonics
- Low Spurious Outputs
- Phase and Amplitude Stability
- RF Output Fidelity
- Solid State, 1-2 GHz
- Complete Solid State Amplifier Protection
- Complete TWT Protection, 2-18 GHz
- Custom Requirements
- Solid State Except for the TWT
- Front Panel Voltage Adjustments
- Front Panel Fault Isolation
- Modular Construction
- DC TWT Filaments
- Four Line Display
 - Operating Mode
 - Cathode Voltage
 - Collector Voltage(s)
 - Helix Current
 - Filament and Operate Time
- Front Panel Controls
 - Power On / Off
 - Operate
 - Standby



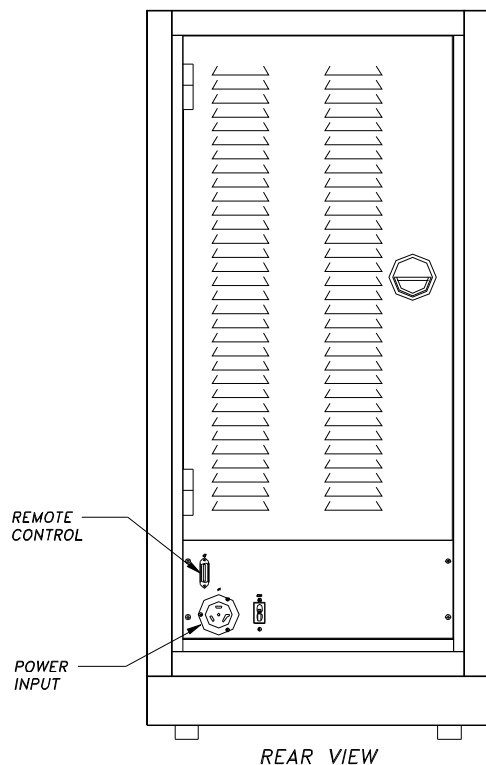
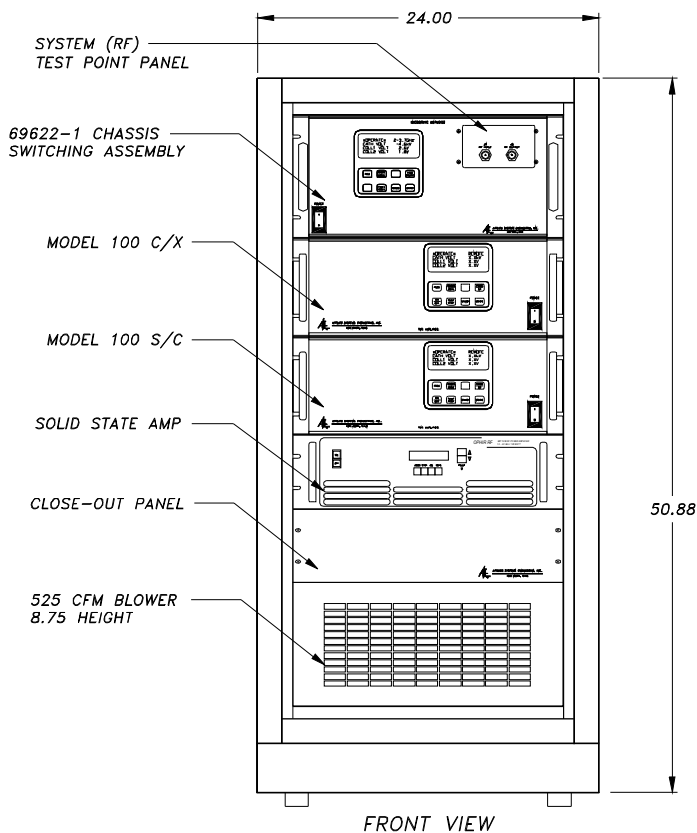
APPLIED SYSTEMS ENGINEERING, INC.

FORT WORTH, TEXAS

Model 170 Microwave Amplifier

SPECIFICATIONS

Power Output	1 to 12 GHz, 50 Watts 12 to 18 GHz, 45 Watts
Duty Cycle	CW Operation
RF Input	0 dBm
Harmonics	-20 dBc
Phase Noise	$< \pm 1^\circ$ pk to pk
Amplitude Variation	0.1 dB, Maximum
Spurious Outputs	-50 dBc, Maximum
Noise Figure	35 dB, Nominal
RF Connectors	Precision Type N (1-12 GHz) or WRD-650 (6.5-18 GHz)
Primary Power	120 VAC, 15Amps $\pm 10\%$, 60 Hz
Operating Temperature	0 to 50°C
Weight	650 lbs, Nominal
Dimensions	50(H)x29(W)x36(D)



Standard Equipment

- Input Isolator
- Filament / Operate Time
- IEEE-488 Remote Interface
- Reverse Power Monitor
- Forward and Reverse RF Sample Ports

Options

- RS-232/422 Remote Interface
- Other Primary Power
- Outdoor Enclosure
- RF Connectors on Front Panel



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