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
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 . . . . . . . . < ± 1° 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
± 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