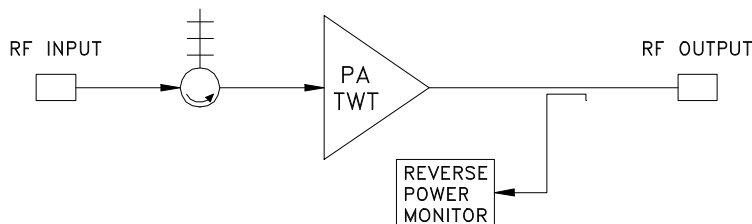


Model 500 500 Watt CW TWTA



The Model 500, CW TWT Amplifier has been designed to operate 500-700 watt traveling wave tubes up to 18 GHz. Internal power supplies are solid state DC-DC converter designs with fast loop response times so that output level variations are minimal. Both cathode and collector power supplies and the heater supply are duty cycle regulated designs. The cathode and collector power supplies have very low ripple, with attendant low phase noise in the TWT Amplifier. Output spurious signals are less than -50 dBc. Plug-in PC boards are accessible through the front panel. The PC card cover contains a legend for PC card located test points and controls.

The modular design of the Model 500 provides convenient accessibility to all elements in the TWT amplifier. High voltage modules are encapsulated, plug-in assemblies. There is no exposed high voltage. Most modules are interchangeable between all units regardless of frequency.

FEATURES:

- Frequency 1-18 GHz
Octave / Multioctave
- Low Spurious Outputs
- Phase and Amplitude Stability
- Complete TWT Protection
 - Helix Overcurrent
 - Cathode Over/Undervoltage
 - Collector Overvoltage
 - Filament Low Voltage
 - Overtemperature
 - Input Energy Limit
 - Reverse Power Monitor
- 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
 - Fault Reset
 - Local / Remote



APPLIED SYSTEMS ENGINEERING, INC.

FORT WORTH, TEXAS

Model 500 500 W CW TWTA SPECIFICATIONS

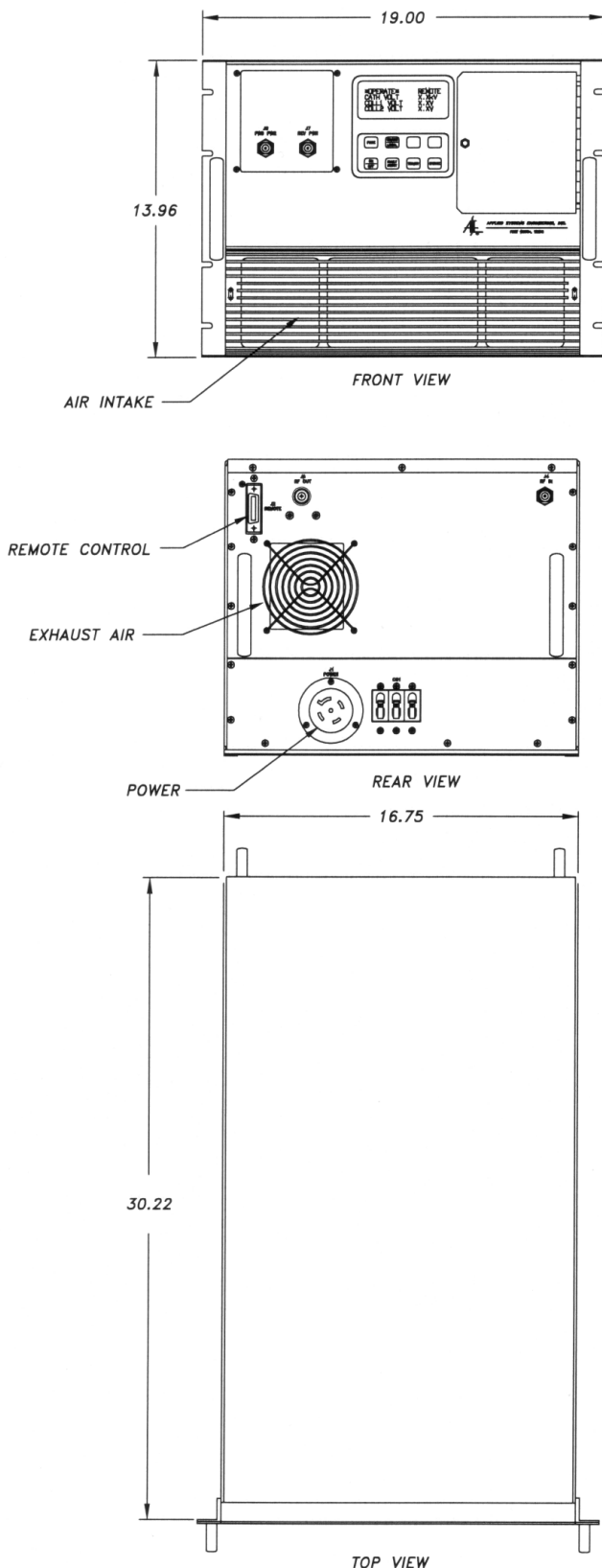
Duty Cycle	CW
Spurious Outputs	-50 dBc, Maximum
Phase Noise	Less than $\pm 1^\circ$
Amplitude Variation	0.1 dB, Maximum
Gain	35 dB, Minimum
Noise Figure	35 dB, Nominal
RF Connectors	Type SC Coax or Waveguide
Primary Power	3 Phase, 208 VAC $\pm 10\%$, 50/60 Hz
Operating Temperature	0 to 50°C
Weight	150 lbs, Nominal
Dimensions	14 x 19 x 30.5(in.)

Standard Equipment

- Input Isolator
- Filament / Operate Time
- IEEE-488 Remote Interface
- Reverse Power Monitor

Options

- Driver Amplifier
- Higher CW Power
- Extended Frequency Coverage
- RF Sample Ports
- RS-232/422 Remote Interface
- Other Primary Power
- Outdoor Enclosure
- RF Connectors on Front Panel
- Harmonic Filters



Note: L-Band requires 15.75" height chassis.



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