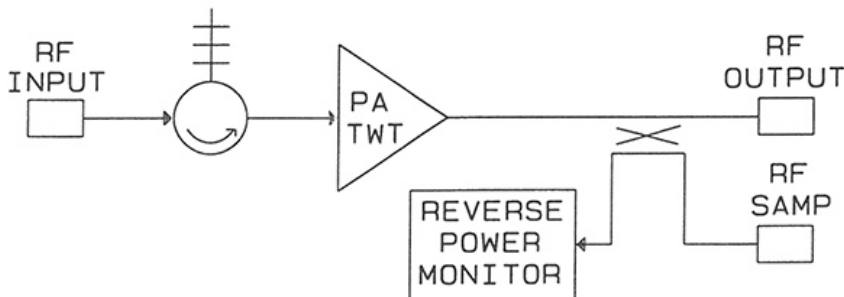


Model 117 1kW TWT Amplifier

1.5%
DUTY

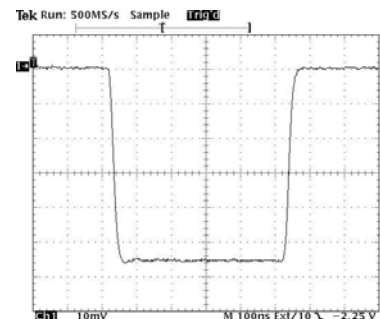


The Model 117 TWT Amplifier has been designed specifically to operate pulsed traveling wave tubes in the 1 to 2 kW peak power range at frequencies from 2.0 to 18 GHz. Particular emphasis has been placed on the generation of the output RF pulse shape without the use of RF switches. Pulse width control is with an external pulse.

The High Voltage Power Supplies are modular DC-DC converter designs. The Power supply design provides superior stability for optimum TWT phase noise and spurious performance.

FEATURES:

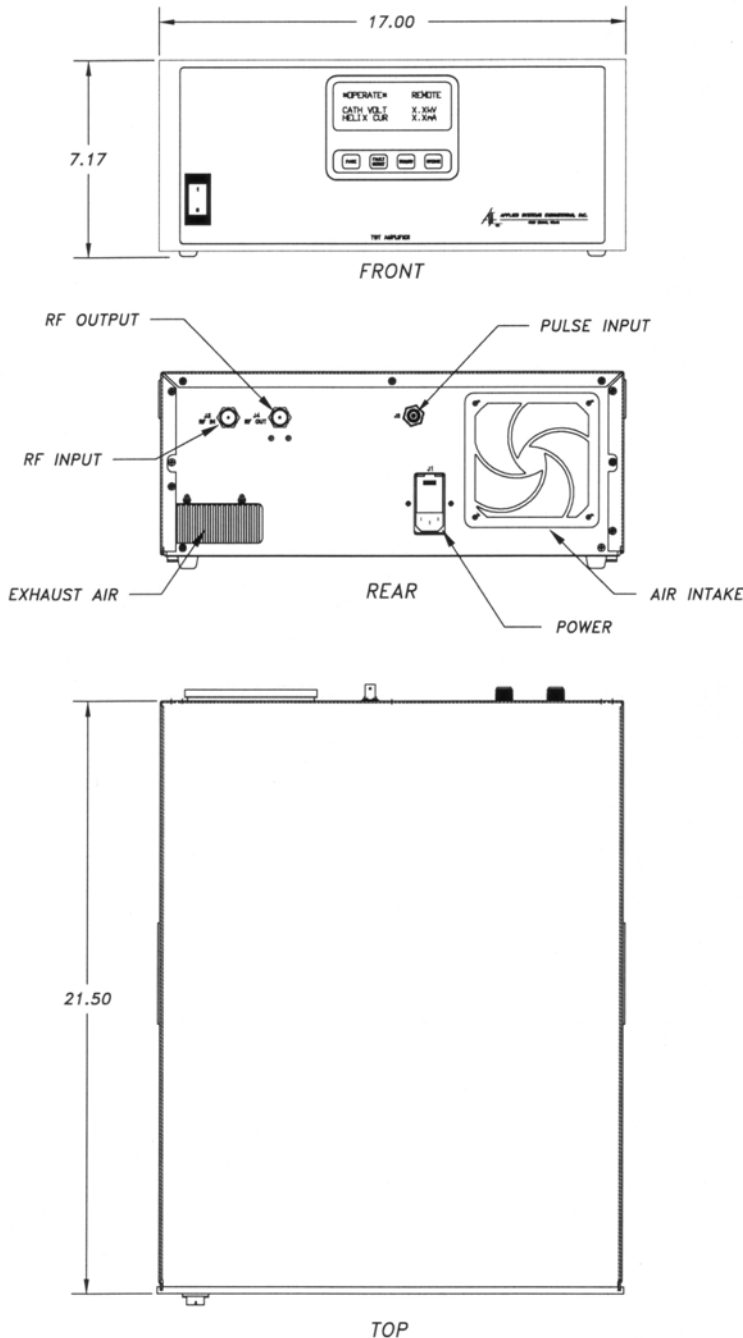
- Frequencies from 2-18 GHz
Octave and Multi-Octaves Available
- RF Pulse Fidelity
- Phase and Amplitude Stability
- Complete TWT Protection
 - Pulse Input Protection
 - Helix Overcurrent
 - Cathode Overvoltage
 - Cathode Undervoltage
 - Filament Low Voltage
 - Overtemperature
 - Input Energy Limit
- Custom Requirements
- Solid State Except for the TWT
- Modular Construction
- DC TWT Filaments
- Four Line Display
 - Operating Mode
 - Beam Voltage
 - Helix Current
 - Filament and Operate Time
- Front Panel Controls
 - Power On Circuit Breaker
 - Operate
 - Standby
 - Fault Reset



APPLIED SYSTEMS ENGINEERING, INC.

FORT WORTH, TEXAS

Model 117 TWT Amplifier SPECIFICATIONS



Duty Cycle	1.5%, Maximum
Pulse Width Range	0.07 to 15 μ s
PRF Range	0 to 100 kHz
RF Rise / Fall Time	15 ns, Maximum
RF Pulse Droop	< 0.1 dB/10 μ s, Maximum
Delay, Input to RF	200 ns, Maximum
Phase Noise	< $\pm 1^\circ$ pk to pk
Amplitude Variation	0.1 dB, Maximum
Spurious Output	-50 dBc, Maximum
Input Pulse	5 Volts into 50 ohms
Noise Figure	35 dB, Nominal
RF Connectors	Precision Type N
Input Voltage	120/220/240 VAC $\pm 10\%$, 50/60 Hz
Operating Temperature	Laboratory Environment
Weight	65 lbs, Nominal

Standard Equipment

- Filament / Operate Time
- RF Input Isolator
- Reverse Power Monitor
- Forward RF Sample Port

Options

- Extended Frequency Coverage
- Solid State Driver Amplifier
- Reverse RF Sample Port
- Phase Droop Correction
- Other Primary Power
- Rack Mount Ears
- Other Connector Types
- Conformal Coated PC Boards



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