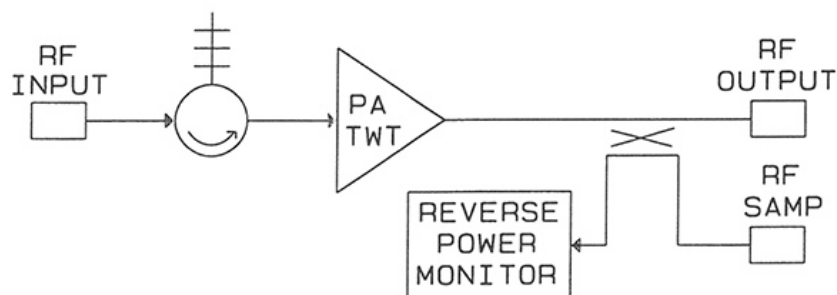


Model 127 1kW TWT Amplifier

2.0%
DUTY



* Shown with Front Panel Options

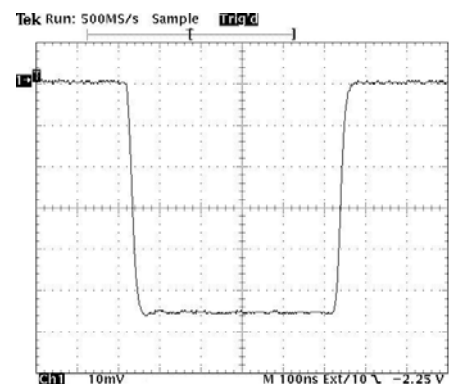


The Model 127 TWT Amplifier has been designed specifically to operate pulsed traveling wave tubes in the 1 to 2 kW peak power range at frequencies 2.0 to 18 GHz. Particular emphasis has been placed on the generation of the output RF pulse shape without the use of RF switches. Pulse width control is with 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 Over/Undervoltage
 - Overtemperature
 - Input Energy Limit
 - Reverse Power Monitor
- Custom Requirements
- Solid State Except for the TWT
- Modular Construction
- DC TWT Filaments
- Four Line Display
 - Operating Mode
 - Cathode Voltage
 - Helix Current
 - Filament and Operate Time
- Front Panel Controls
 - Power On / Off
 - Operate
 - Standby
 - Fault Reset
 - Local / Remote



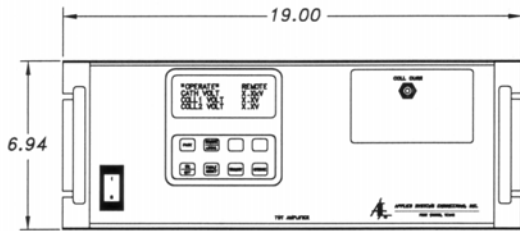
Detected RF Output



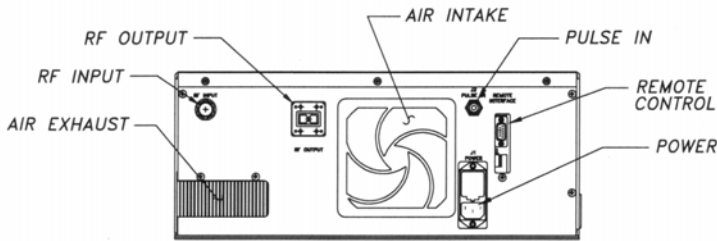
APPLIED SYSTEMS ENGINEERING, INC.

FORT WORTH, TEXAS

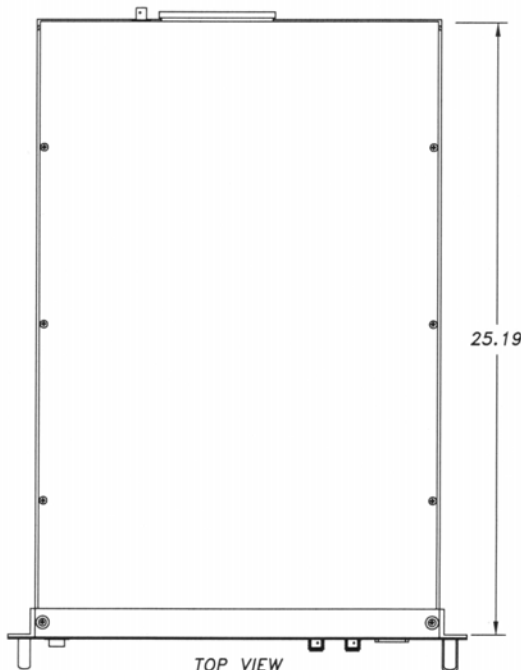
Model 127 TWT Amplifier SPECIFICATIONS



FRONT VIEW



REAR VIEW



TOP VIEW

Duty Cycle	2.0%, Maximum
Pulse Width Range	0.07 to 15 us
PRF Range	0 to 100 kHz
RF Rise / Fall Time	15 ns, Maximum
RF Pulse Droop	< 0.1 dB/10 us, Maximum
Delay, Input to RF	200 ns, Maximum
Phase Noise	< $\pm 1^\circ$ pk to pk
Amplitude Variation	0.1 dB, Maximum
Spurious Outputs	-50 dBc, Maximum
Input Pulse	5 Volts into 50 ohms
Noise Figure	35 dB, Nominal
RF Connectors	Precision Type N or Waveguide
Primary Power	120/220/240 VAC $\pm 10\%$, 50/60 Hz
Operating Temperature	-20° to +50°C
Weight	70 lbs, Nominal
Dimensions	7 x 19 x 25.5 (in.)

Standard Equipment

- Filament / Operate Time
- Remote Power On/Off
- Ethernet Remote Control (TCP/IP or UDP/IP)
- RF Input Isolator
- Reverse Power Monitor
- Forward RF Sample Port

Options

- Solid State Driver Amplifier
- Pulse Width up to 25 μ sec
- Extended Frequency Coverage
- Reverse RF Sample Port
- RS-232/422 or IEEE-488 Remote Control
- Other Primary Power
- Rack Mount Slides
- RF Connectors on Front Panel
- Conformal Coated PC Boards



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