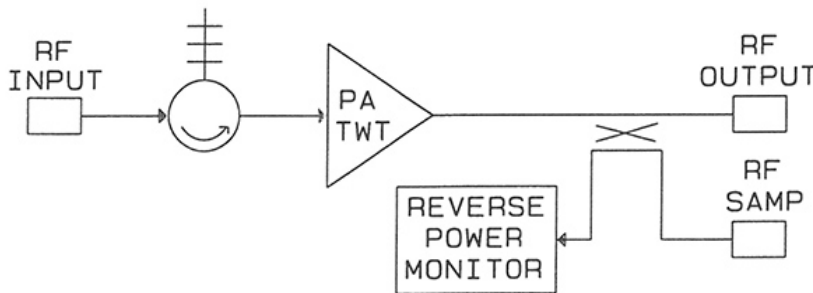


Model 37 Pulse/CW TWT Amplifier



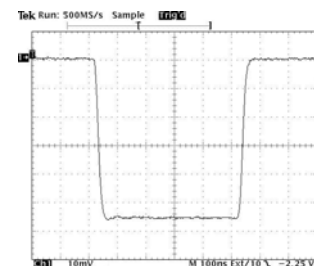
FEATURES:

- Frequency 2-8 or 6-18 GHz
- Low Spurious Outputs
- Phase and Amplitude Stability
- RF Output Fidelity
- Complete TWT Protection
 - PRF Limit
 - Helix Overcurrent
 - Cathode Over/Undervoltage
 - 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
 - Helix Current
 - Filament and Operate Time
- Front Panel Controls
 - Power On / Off
 - Operate
 - Standby
 - Fault Reset
 - Local / Remote
 - Pulse / CW



The Model 37 is a dual mode Pulse/CW TWT Amplifier which has been designed to operate TWT's up to 80 watts in the 2 to 18 GHz frequency ranges. The RF output pulse is generated by the focus electrode (grid) pulse without the use of RF switches. RF output pulse is controlled by the input video 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.



Detected RF Output



APPLIED SYSTEMS ENGINEERING, INC.

FORT WORTH, TEXAS

Model 37 TWT Amplifier SPECIFICATIONS

Duty Cycle	Up to 50% Pulse or CW
Pulse Width Range	50 ns to CW
PRF Range	Up to 1 MHz
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	85 lbs, Nominal
Dimensions	7 x 19 x 26.5 (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
- Switchable Pulse or CW Mode of Operation

Options

- Solid State Driver Amplifier
- Other PRF and Pulse Width Ranges
- Reverse RF Sample Port
- RS-232/422 or IEEE-488 Remote Control
- Other Primary Power
- Outdoor Enclosure
- Harmonic Filters
- RF Connectors on Front or Rear Panel
- Input RF Attenuator
- Chassis Slides
- Conformal Coated PC Boards

