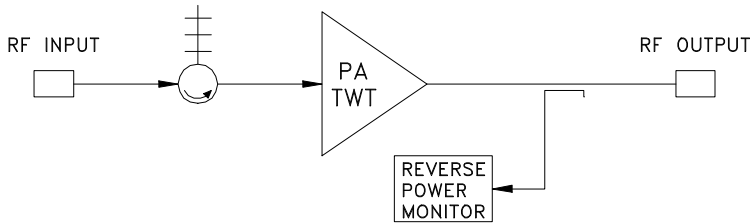


Model 37 Pulse/CW TWT Amplifier



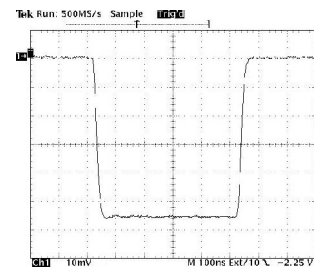
The Model 37 is a dual mode Pulse/CW TWT Amplifier which has been designed to operate TWT's up to 80 watts in the 2 to 18 GHz frequency ranges. The RF output pulse is generated by the focus electrode (grid) pulse without the use of RF switches. RF output pulse is controlled by the input video pulse.

Internal power supplies are DC-DC converter designs with fast loop response times so that output level variations are minimal for any PRF including a non-periodic or burst type PRF. The modular power supplies and grid pulse generator have very low ripple, with attendant low phase noise in the TWT Amplifier.

The modular design of the Model 37 provides convenient accessibility to all elements in the TWT amplifier. Plug-in PC boards are available when the cover is removed. The PC boards contain the test points and controls. 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 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



Detected RF Output



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FORT WORTH, TEXAS

Model 37 TWT Amplifier

SPECIFICATIONS

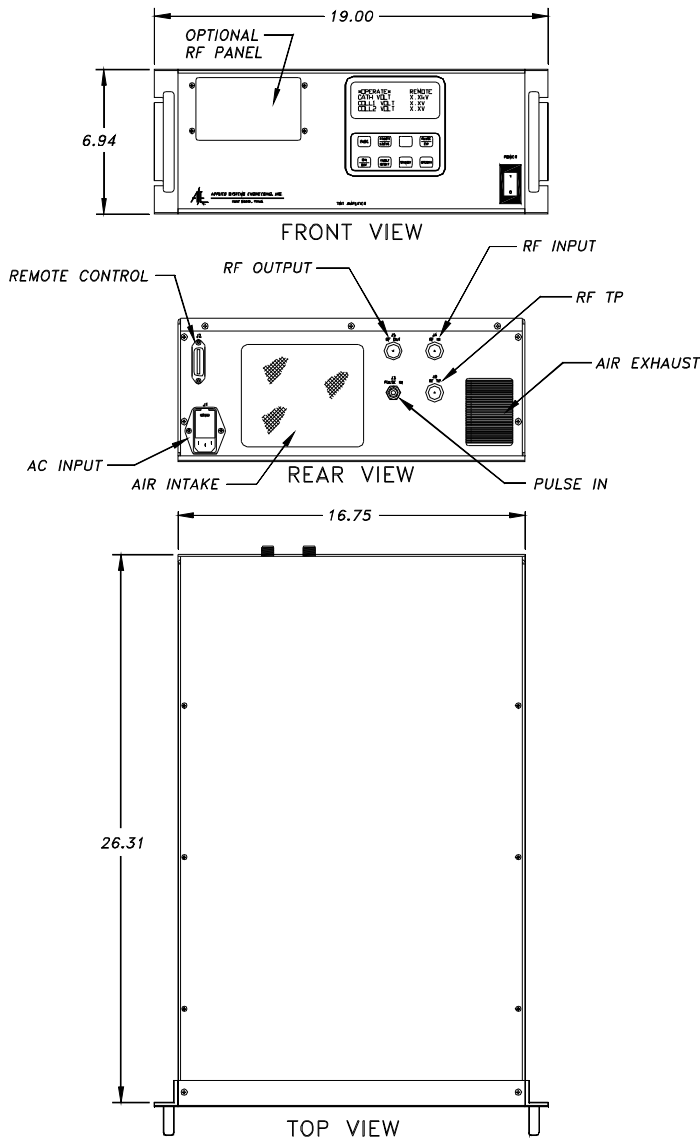
Duty Cycle	Up to 50% Pulse or CW
Pulse Width Range	50 ns to CW
PRF Range	Up to 1 MHz
RF Rise / Fall Time	15 ns, Maximum
RF Pulse Droop	< 0.1 dB/10 us, Maximum
Delay, Input to RF	200 ns, Maximum
Phase Noise	< $\pm 1^\circ$ pk to pk
Amplitude Variation	0.1 dB, Maximum
Spurious Outputs	-50 dBc, Maximum
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	0 to 50°C
Weight	85 lbs, Nominal
Dimensions	7 x 19 x 26.5 (in.)

Standard Equipment

- Input Isolator
- Filament / Operate Time
- IEEE-488 Remote Interface
- Reverse Power Monitor
- Switchable Pulse or CW Mode of Operation

Options

- Solid State Driver Amplifier
- Other PRF and Pulse Width Ranges
- Forward and Reverse RF Sample Ports
- RS-232/422 Remote Interface
- Other Primary Power
- Outdoor Enclosure
- Harmonic Filters
- RF Connectors on Front or Rear Panel
- Input RF Attenuator
- Chassis Slides



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