

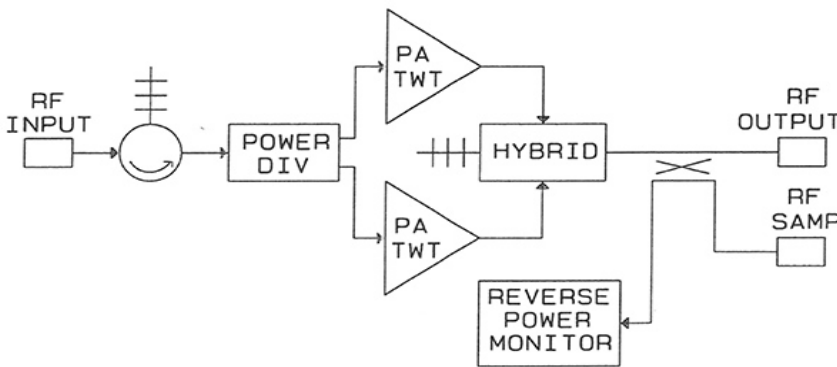
Model 477Ka 1600W* TWT Amplifier

Up to
8.0%
DUTY*



FEATURES:

- Low Spurious Outputs
- Phase and Amplitude Stability
- Complete TWT Protection
 - Pulse Input Protection
 - Helix Overcurrent
 - Cathode HVPS Crowbar
 - Cathode Over/Undervoltage
 - Filament Low Voltage
 - Over temperature
 - 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

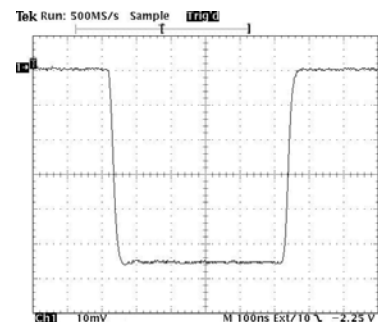


The Model 477Ka provides 700-1600W* peak power at duty cycles up to 8% from 33 to 36 GHz. Particular emphasis has been placed on the generation of the output RF pulse shape. The RF output pulse width tracks the input 5 volt video pulse.

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.

All high voltage modules are plug-in assemblies packaged in an aluminum oil tank with transformer oil as the dielectric medium. Transformer drivers feature power MOSFET's in a full wave bridge configuration. Imbedded processor provides control, monitor and interface functions, and multiple pages of monitored functions on the front panel 4-line vacuum fluorescent display.

*Tube Specific Parameters, call for options



Detected RF Output

Model 477Ka TWT Amplifier SPECIFICATIONS

Output Power	700-1600 Watts, Peak*
Duty Cycle	up to 8%, Maximum*
Pulse Width Range	0.05 to 10 μ s
PRF Range	0 to 100 kHz
RF Rise / Fall Time	15 ns, Maximum
Input Pulse / RF Pulse	300 ns, Maximum
Phase Noise	$\pm 1^\circ$ pk to pk
Amplitude Variation	0.1 dB, Maximum
Spurious Outputs	-50 dBc, Maximum
Harmonics	-30 dBc, Maximum
Input Pulse	5 Volts into 50 ohms
Noise Figure	20 dB, Nominal
RF Input Connector	3.5mm, Female
RF Output Connector	WR-28 Waveguide
Primary Power	120 VAC, 1-phase $\pm 10\%$, 50/60 Hz
Operating Temperature	-20 $^\circ$ to +50 $^\circ$ C
Weight	190 lbs, Nominal
Dimensions	17 x 15.75 x 30.5 (in.)

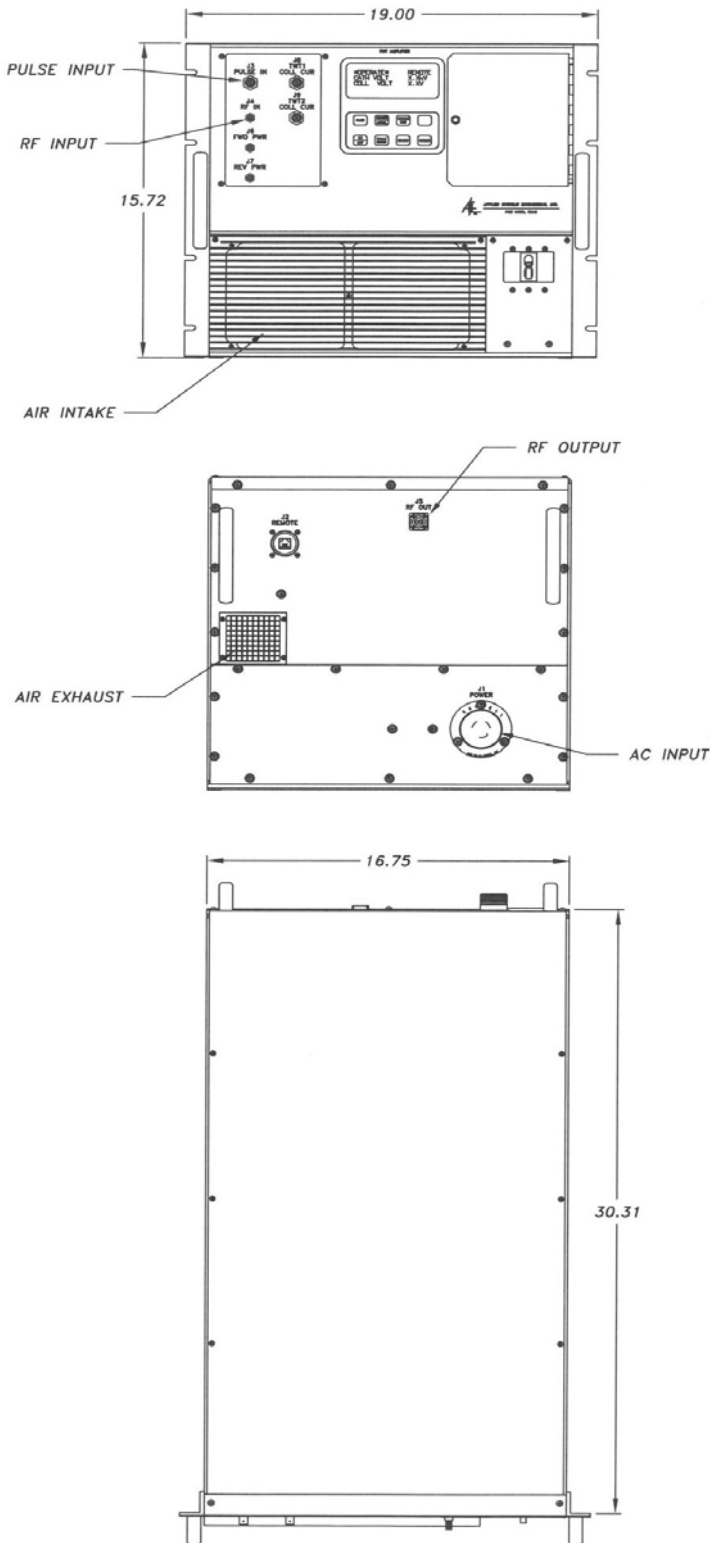
*Tube Specific Parameters, call for options

Standard Equipment

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

Options

- Other PRF and Pulse Width Ranges
- Reverse RF Sample Port
- Detected RF Output
- RS-232/422 or IEEE-488 Remote Control
- Other Primary Power
- Outdoor Enclosure
- Conformal Coated PC Boards



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