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.

Internal power supplies are DC-DC converter designs with fast loop response times so that output 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.
SPECIFICATIONS

Duty Cycle ................ 1.5%, 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 ............... < ± 1° 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 ± 10%, 50/60 Hz
Operating Temperature . Laboratory Environment
Weight .................... 65 lbs, Nominal
Dimensions ............... 7 x 17 x 21.5 (in.)

Standard Equipment

- Input Isolator
- Reverse Power Monitor
- Filament Time Meter

Options

- Extended Frequency Coverage
- Solid State Driver Amplifier
- RF Sample Ports
- Phase Droop Correction
- Other Primary Power
- Rack Mount Ears
- Other Connector Types