The Model 500, CW TWT Amplifier has been designed to operate 500-700 watt traveling wave tubes up to 18 GHz. Internal power supplies are solid state DC-DC converter designs with fast loop response times so that output level variations are minimal. Both cathode and collector power supplies and the heater supply are duty cycle regulated designs. The cathode and collector power supplies have very low ripple, with attendant low phase noise in the TWT Amplifier. Output spurious signals are less than -50 dBc. Plug-in PC boards are accessible through the front panel. The PC card cover contains a legend for PC card located test points and controls.

The modular design of the Model 500 provides convenient accessibility to all elements in the TWT amplifier. High voltage modules are encapsulated, plug-in assemblies. There is no exposed high voltage. Most modules are interchangeable between all units regardless of frequency.
Model 500 500 W CW TWTA SPECIFICATIONS

Duty Cycle ............... CW
Spurious Outputs .... -50 dBc, Maximum
Phase Noise ............ Less than ± 1°
Amplitude Variation .... 0.1 dB, Maximum
Gain ..................... 35 dB, Minimum
Noise Figure ............ 35 dB, Nominal
RF Connectors ........ Type SC Coax or Waveguide
Primary Power ........ 3 Phase, 208 VAC ± 10%, 50/60 Hz
Operating Temperature . 0 to 50°C
Weight ................. 150 lbs, Nominal
Dimensions ............. 14 x 19 x 30.5(in.)

Standard Equipment

• Input Isolator
• Filament / Operate Time
• IEEE-488 Remote Interface
• Reverse Power Monitor

Options

• Driver Amplifier
• Higher CW Power
• Extended Frequency Coverage
• RF Sample Ports
• RS-232/422 Remote Interface
• Other Primary Power
• Outdoor Enclosure
• RF Connectors on Front Panel
• Harmonic Filters

Note: L-Band requires 15.75” height chassis.