The Model 20 series CW TWT Amplifier has been designed to operate 25 watt traveling wave tubes over the 4-18 GHz range. 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. The front panel 4-line vacuum fluorescent display, with 2 page modes, provides a monitor for the operating characteristics.

**FEATURES:**
- Frequency 4-18 GHz
- Octave / Multioctave
- Low Spurious Outputs
- Phase and Amplitude Stability
- Complete TWT Protection
  - Helix Overcurrent
  - Cathode Over/Undervoltage
  - Overtemperature
  - Input Energy Limit
- Custom Requirements
- Solid State Except for the TWT
- Front Panel Fault Isolation
- 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
**Model 20 20 W CW TWTA**

**SPECIFICATIONS**

- **Duty Cycle**: CW
- **Spurious Outputs**: -50 dBc, Maximum
- **Phase Noise**: Less than ± 1°
- **Amplitude Variation**: 0.1 dB, Maximum
- **Gain**: 29 dB, Minimum
- **Noise Figure**: 35 dB, Nominal
- **RF Connectors**: Precision Type N
- **Primary Power**: 120/220/240VAC ± 10%, 50/60 Hz
- **Operating Temperature**: 0 to 40°C
- **Weight**: 20 lbs, Nominal
- **Dimensions**: 3.50 x 19 x 20 (in.)

**Standard Equipment**

- Filament / Operate Time
- IEEE-488 Remote Interface

**Options**

- RF Input Isolator
- Driver Amplifier
- Gain Equalizer
- RF Sample Port
- RF Connectors on Rear Panel
- RS-232/422 Remote Interface