The 7504 is a pulsed amplifier klystron capable of producing a peak power output of 2.2 megawatts at a 003 duty cycle. It has three integral cavities which can be mechanically tuned to cover the frequency band from 1240-1360 mcs. The ability to operate at pulse lengths up to 9 μs and to provide a gain of 36 db makes it ideally suited for use in ground based radar systems.

The unique high temperature processing used in all Litton Industries' tubes permits the 7504 klystron to provide reliable, long-life operation.

**ELECTRICAL DATA — GENERAL**

- Heater Voltage (ac): 16 volts
- Heater Current at 16 Volts: 7.0-9.5 amps
- Heater Cold Resistance: 0.261 ohms
- Input Connector: Type C
- Output Connection: Special transition to RG-69/U or RG-103/U Waveguide

**MECHANICAL DATA — GENERAL**

- Base and Physical Dimensions
- See Outline Drawing
- Mounting Information
- Any Position
- Cooling Data, Water

**COLLECTOR**  **BODY**

- Flow: 7.5 gpm
- 1.5 gpm
- Pressure drop: 50 psi
- 50 psi
- Net Weight: Approx. 110 lbs.

**ABSOLUTE RATINGS**

**MIN.**  **MAX.**

- Heater Voltage, Vt: 15 17 Volts ac
- Heater Current, I (surge): 20 amps
- Anode Voltage, epy: 125 KV
- Anode Voltage, exp: 30 KV
- Cathode Current, Peak Ic: 87 amps
- Cathode Current Avg. Ic: 260 ma
- Peak Power Input: 9.5 MW
- Average Power Input: 27.5 KW
- Frequency: 1360 Mcs
- 9 μs
- Pulse Length, ts (epy): 1 KW
- R-F Input Power, Peak: 1.5:1 minutes
- R-F Input Power, avg: 50 psia
- Load VSWR: 175°C
- Cathode Heating Time: 125°C
- 20 75 psig
- Window Pressure: 500 in/oz.
- Cathode Seal Temp: 70°C
- Window Seal Temp:
- Hydrostatic Pressure:
- Tuner Torque:
- Fluid Coolant Outlet Temp:

**TYPICAL OPERATION**

- Peak Voltage: 115 KV
- Peak Current: 78 a
- Pulse Width: 9 μs
- Duty: 0.003
- Peak Power Output: 2.2 MW
- Gain: 36 db
- Time Jitter, rms: 5 μms
- Phase Jitter, rms: 0.5°