

7156A000

## PULSE MAGNETRON

**7156A**

250 Kilowatts Minimum Peak Power  
Tunable Frequency 5450 to 5825 MHz

This proven, long life, tunable pulse magnetron at C-band has recorded operational life in excess of 2500 rf hours. All Litton Industries' tubes are constructed using the exclusive high temperature bake-out decontaminating process which increases in-service life, improves reliability and stability and eliminates the necessity of aging-in the tube prior to its operation after a lengthy time on the shelf.

**OPERATING CONDITIONS**

Heater Voltage.....	5.0 V
Heater Current.....	5.0 A
Preheat Time.....	Min. 180 sec.
Pulse Voltage.....	24.0 to 28.0 kVdc
Pulse Current.....	24.0 a
Rate of Rise of Voltage.....	Max. 0.1 kv/ $\mu$ s
Anode Cathode Capacitance.....	Max. 18.0 uufd

**ABSOLUTE MAXIMUM RATINGS**

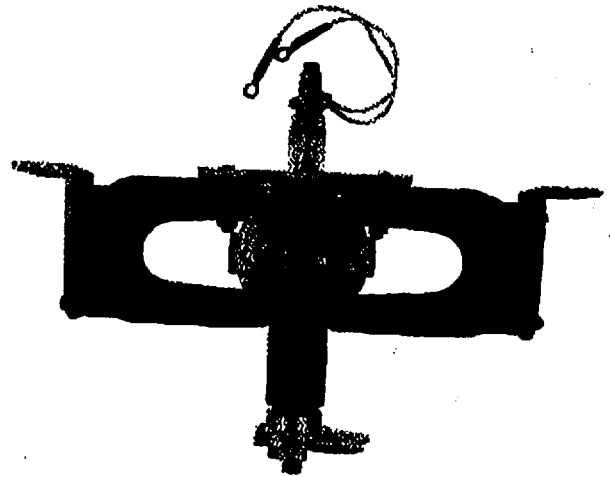
Heater Voltage.....	6.5 V
Heater Surge Current.....	12 A
Pulse Voltage.....	28 kv
Pulse Current.....	30 a
Pulse Length.....	3.0 $\mu$ s
Average Input Power.....	750 W
Duty Cycle.....	0.0012
Anode Temperature.....	150° C
Cathode Temperature.....	175° C
VSWR.....	1.5:1 Ratio
Altitude.....	10,000 Feet

**PERFORMANCE CHARACTERISTICS**

Peak Power.....	Min. 250 kw
Tunable Frequency.....	5450 to 5825 MHz
Pulling Factor (1.5:1 VSWR).....	Max. 15 MHz
Pushing Figure ( $\pm 10\%$ lb).....	Max. 2.0 MHz
Missing Pulses.....	Max. 0.25 Percent
Side Lobes.....	Min. 8 dB
Bandwidth.....	Max. 2.0/tpc. MHz
Anode Temperature Co-efficient.....	Max. 0.20 MHz/°C
Rated Cycle Life.....	1000 Hrs.

**MECHANICAL RATINGS**

Mounting Position.....	Any
Weight.....	Max. 35 lbs.
Mating Waveguide Flange.....	UG-148 B/U
Anode Cooling.....	Forced Air
Output Pressurization.....	Max. 35 lbs./sq. in.



**ELECTRON TUBE DIVISION**  
San Carlos, California • Williamsport, Pennsylvania

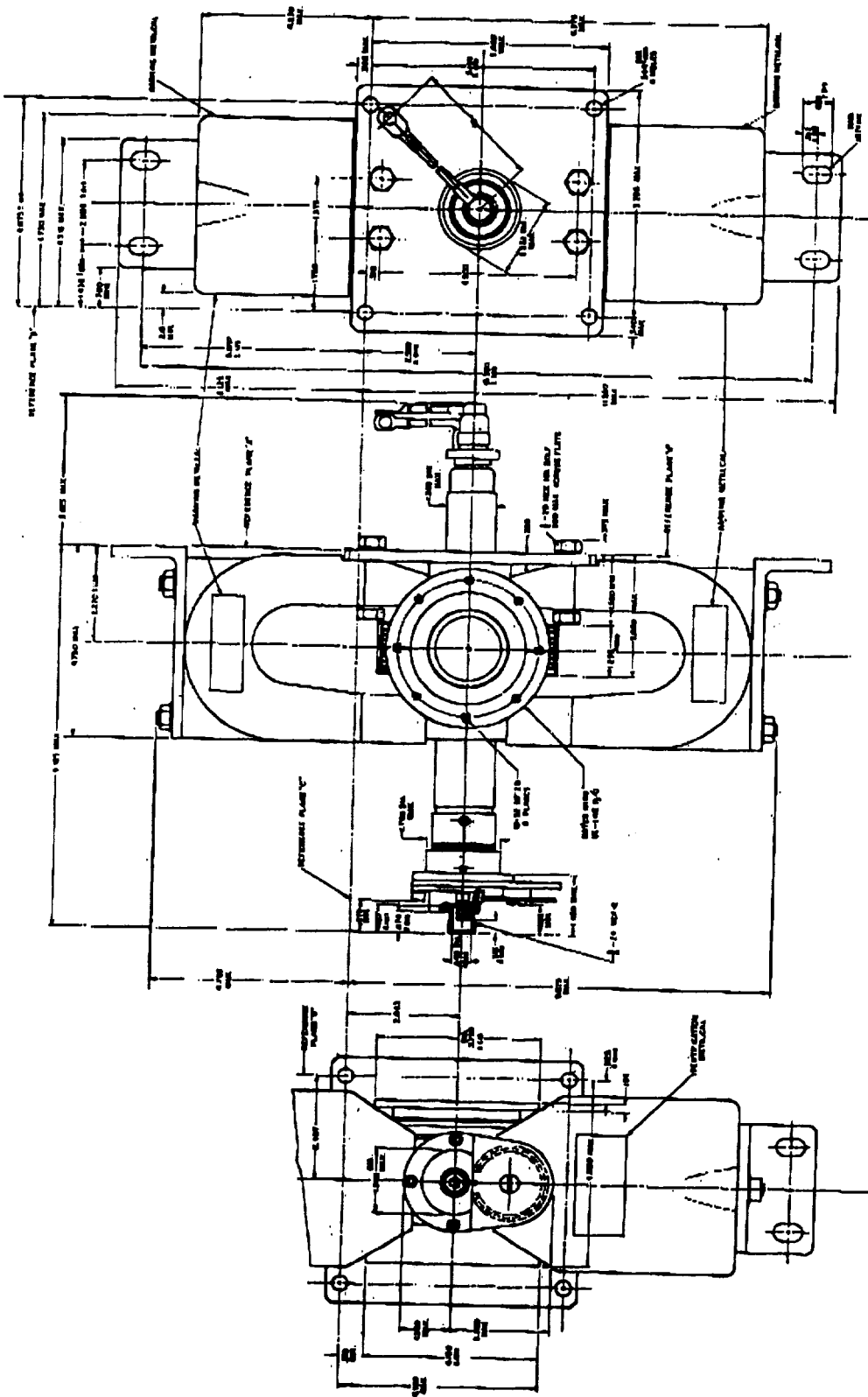
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Personnel should not be exposed to the microwave energy of this tube outside from this device in any manner. All exposed parts should be shielded or restricted. Microwave energy and particles must be contained in the vacuum tank, and the proper safety engaged. Never operate this device without a microwave energy absorbing heat absorber. Never look into the sight opening to see whether or not the device is operating.



This device may produce X radiation when operating. Operating personnel must be protected by appropriate shielding. It may also have signs or labels which are permanently attached to the device. Personnel operating personnel should refer to operation of this device without X-ray shielding in place.



**ELECTRON TUBE DIVISION**  
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