



communications

Electron Devices

L5810 Traveling Wave Tube

Features

- **15 KW Peak**
- **X-Band PPM**
- **60dB Gain**
- **4% Duty**
- **Liquid Cooled**



Typical Performance

Peak RF Power Output	15 KW min.
Duty Cycle	4%
RF Drive Power Input	10 dBm
Frequency	9.5 to 10.0 GHz
Saturated Gain	60 dB
Phase Pushing	
-Cathode Voltage	25°/1%
-Grid Voltage	7°/1%
-RF Input Power	2° dB

The tube is fully stable without RF drive power operating into a worst phase mismatch of 2.5:1.

Mechanical

Mounting Position	Any
Weight	16 lbs
Dimensions	See Outline Drawing

Typical Operating Parameters

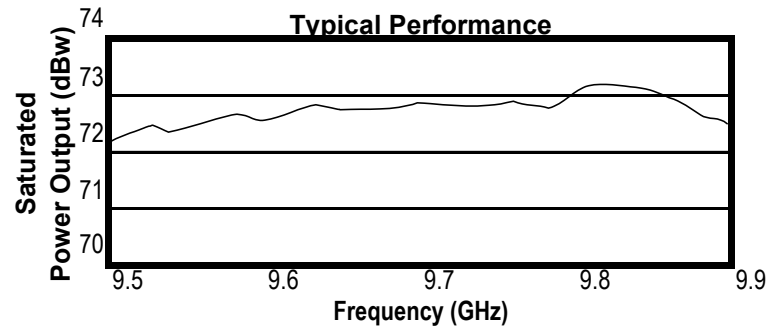
Cathode Voltage	-22.8 to -25.0 KV
Peak Cathode Current	3.8 to 4.5 A
Collector Voltage	12 to 14 KV
Peak Body Current	1.0 A max.
Grid Bias	-300 to -400 V
Peak Grid Drive	+150 to +340 V
Peak Grid Current	50 mA max.
Heater Voltage	-10.5 to - 11.5 VDC
Heater Current	3.6 A max.
Cooling, Liquid	Coolanol 35/25 or equiv. @ 2.0gpm
Gun Insulation	Dielectric Fluid or Gas

All voltages are with respect to cathode.

The L5810 coupled cavity traveling wave tube provides a minimum pulsed power output of 15KW over the frequency range of 9.5 to 10.0 GHz. It has a typical saturated gain of 60dB minimum over a 5% bandwidth and is suitable for use in airborne radar systems.

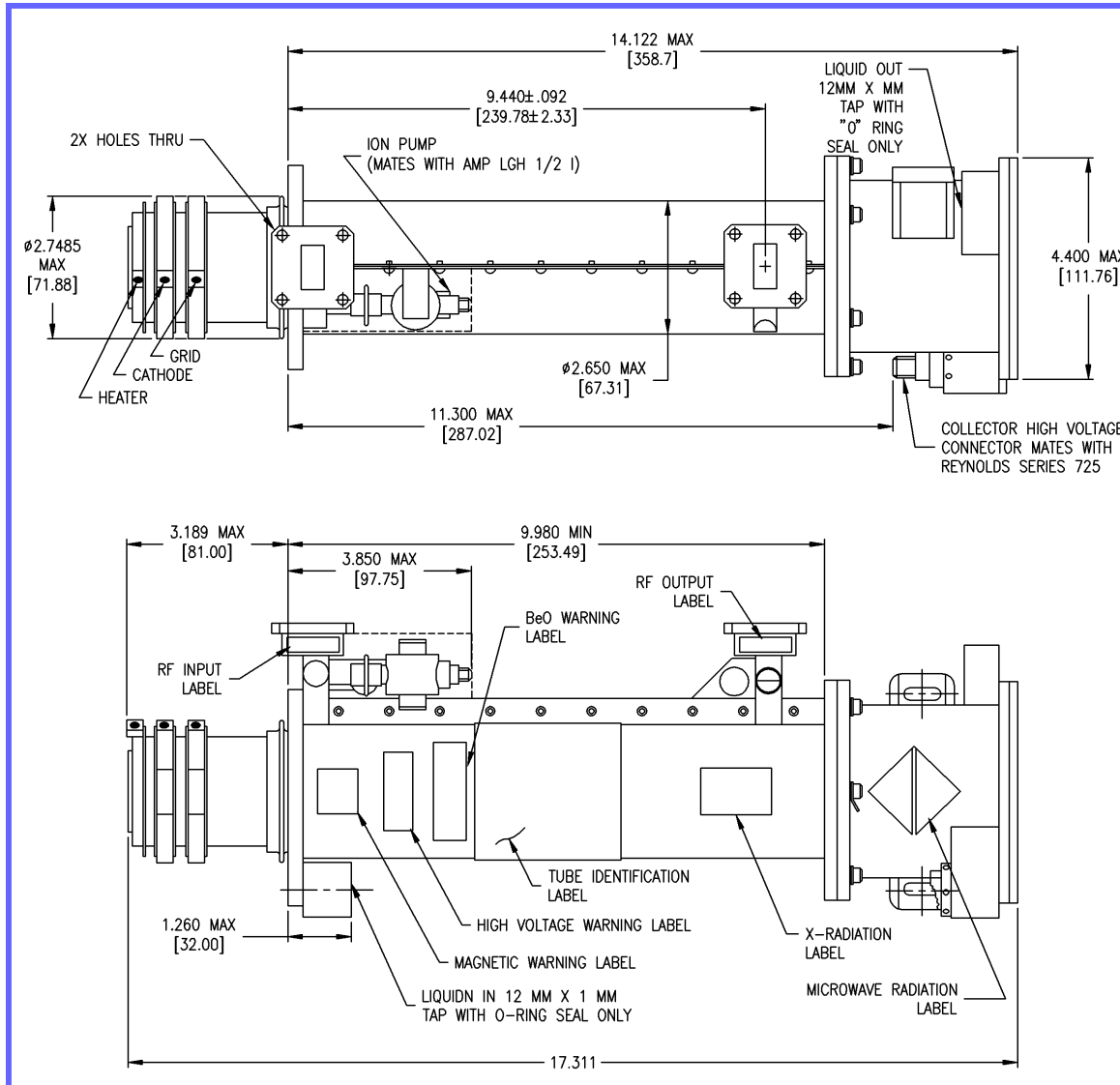
The tube is liquid cooled and is designed to operate at 4% duty cycle. It has a shadow-gridded electron gun and is PPM focused with samarium cobalt magnets.

The L5810 is designed for operation in MIL-E-5400 and ISO Standard Environments. DS58101102



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L5810 Outline Drawing



Current detailed outline drawings are available on request. Specifications and features are subject to change without notice.