



communications

Electron Devices

L5982 Traveling Wave Tube

Features:

- 9.0 to 10.0 GHz
- 8.0 kW Peak Minimum
- 45 dB Small Signal Gain
- 5% Duty



Typical Operating Conditions

Duty	5%
Cathode Voltage	-15 KVDC
Cathode Current	2.6 A Peak
Helix Voltage	Ground Potential
Helix Current	0.5 A Peak
Grid Voltage	Off: -250 VDC On: +250 VDC
Filament Voltage	-6.3 VDC
Filament Current	2.7 A
Collector #1	10.5 KVDC
Collector #2	6.0 KVDC

Performance Characteristics

Frequency Range	9.0 to 10.0 GHz
Power Output	Min. 8000 W
Rated Gain	Min. 40 dB

Maximum Ratings

Beam Duty	5%
Helix Current	0.65 A Peak
Heat Sink Temperature	110°C

Mechanical Description

Dimensions	See Outline Drawing
Weight	8 lbs Max.
Cooling	Conduction
Mounting Position	Any

Environmental Capability

Shock	15 g
Vibration	10 g
Baseplate Temperature	-40°C to +110°C

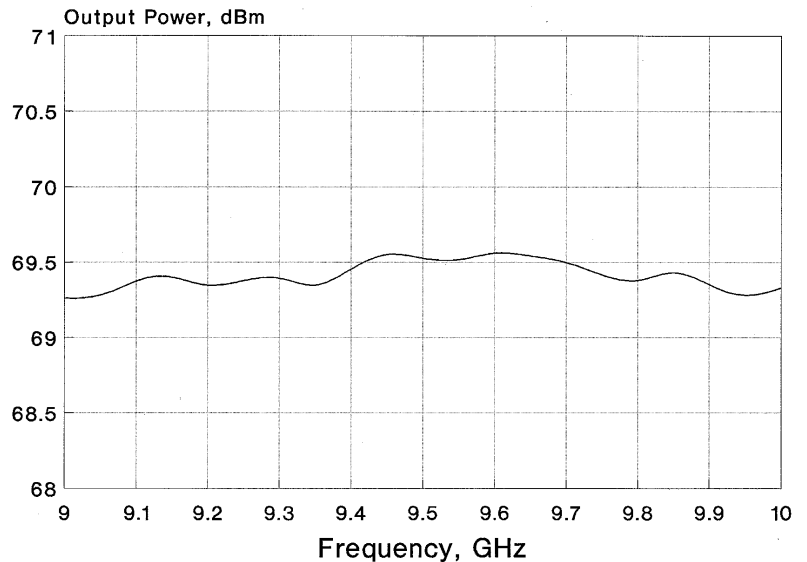
Power Supply Requirements

Cathode Voltage Range	-14.5 to -15.3 KVDC
Cathode Current(Maximum)	2.9 A Peak
Grid Voltage Range	-250 to +300 VDC
Filament Voltage	-6.1 to -6.5 VDC
Filament Current	2.0 to 3.0 A

All voltages are with respect to cathode

The L5982 is a helix traveling wave tube with a minimum peak power output of 8000 watts over the frequency range of 9.0 to 10.0 GHz at a maximum duty cycle of 5%. The tube has a metal-ceramic vacuum envelope, a non-intercepting grid, a two-stage collector and periodic permanent magnet focusing. DS59821102

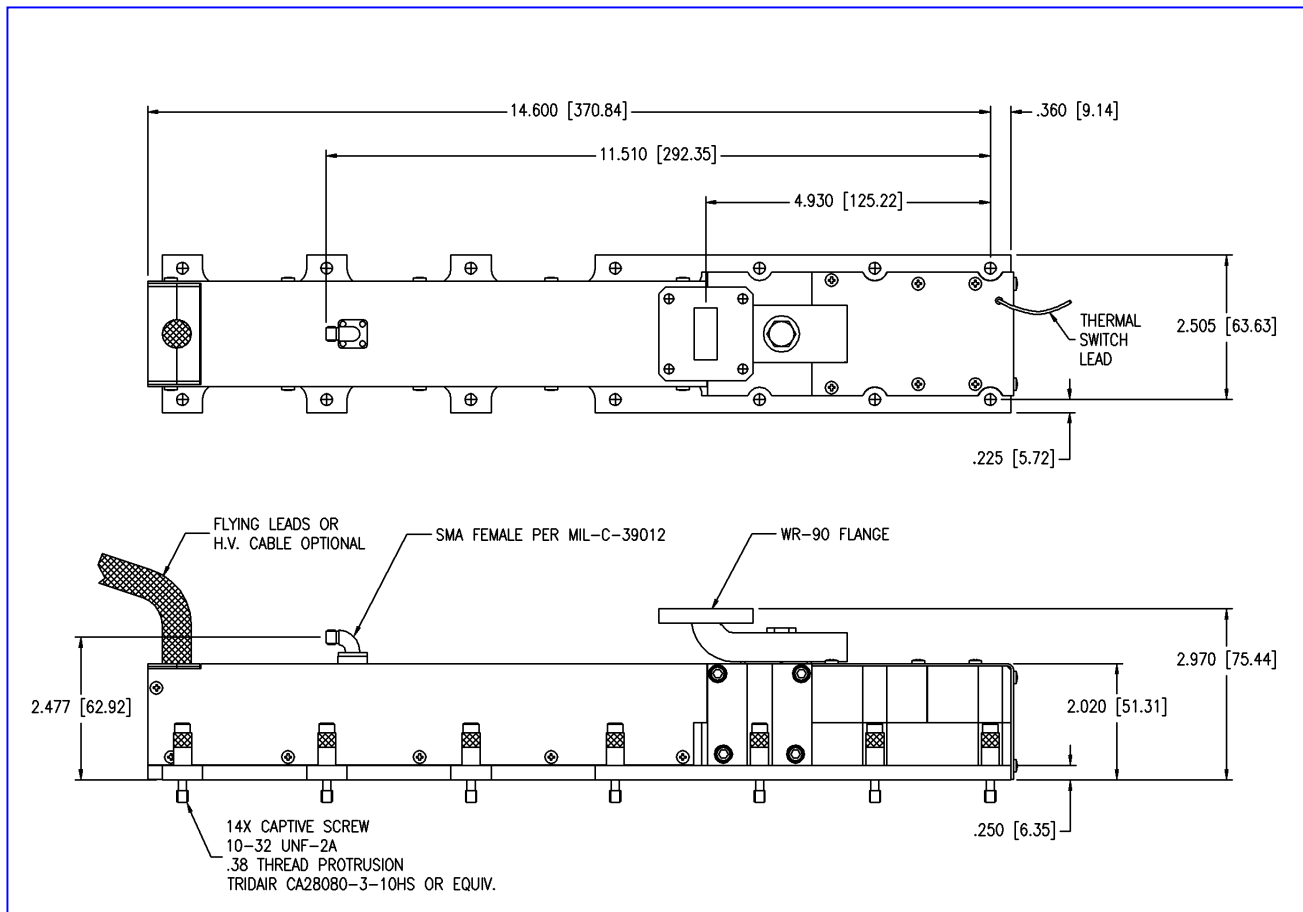
Output Power vs. Frequency



Pin = +29dBm

Cleared by DoD/DFOISR for public release under 03-S-0390 1/24/03

L5982 Outline Drawing



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