



communications

Electron Devices

L2086

Traveling Wave Tube

Features

- 2 to 4 GHz*
- 500 Watts Min.
- 30 dB Gain
- PPM Focused
- Hi Mu Grid



Typical Operating Conditions

Duty	CW
Cathode Voltage	-5.6 KVDC
Cathode Current	770 mA
Collector Voltage	4.0 KV
Grid Voltage	+130 V
Grid Bias Voltage	-250 VDC
Filament Voltage	-6.3 VDC
Filament Current	3.6 A
Grid Current	1 mA

Performance Characteristics

Frequency Range	1.8 to 3.6 GHz
Power Output	Min. 500 W
Rated Power Gain	Min. 30 dB

Maximum Ratings

Duty	CW
Helix Current	75 mA
Heat Sink Temperature	100°C

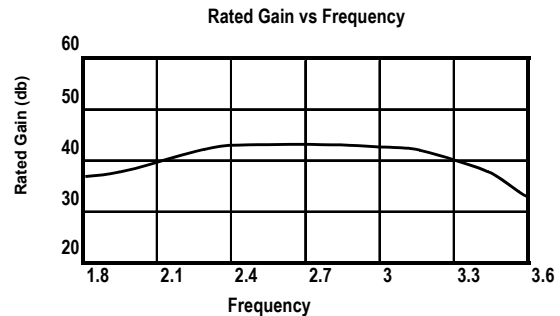
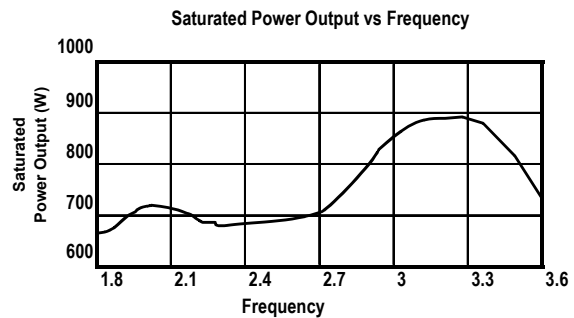
Mechanical Description

Dimensions	See Outline Drawing
Weight	14 lbs
Cooling	Conduction
Mounting Position	Any
RF Connectors	
Input	SMA
Output	S/C
Electrical Connectors	Flying Leads

Environmental Capability

Shock (at 11 ms)	15 g
Vibration (at 500cps)	10 g
Ambient Temperature	-54°C to +110°C
Altitude	70,000 feet

The L2086 is a broadband CW traveling wave tube with a minimum power output of 500 watts over the frequency range of 1.8 to 3.6 GHz*. The tube has a metal-ceramic vacuum envelope and utilizes periodic permanent magnet focusing. DS20861102



Power Supply Requirements

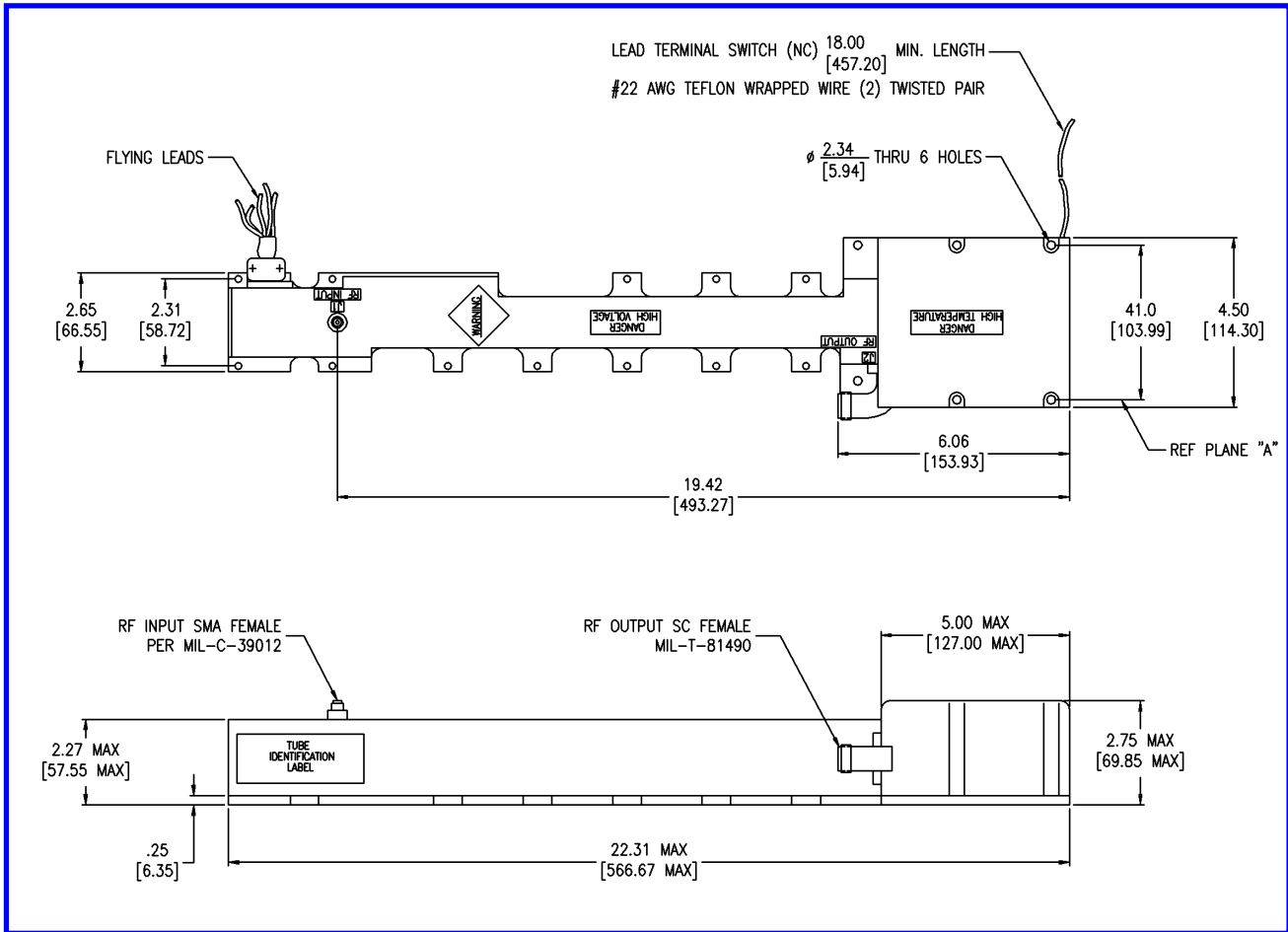
Cathode Voltage Range	-5.3 to -5.9 KVDC
Cathode Current, Max	800 mA
Grid Voltage Range	+70 TO +180 VDC
Grid Current, Max.	10 mA
Grid Bias Voltage	-250 VDC
Filament Voltage	-6.3 VDC
Filament Current	3.2 to 5 A

All voltages are with respect to cathode

*Can be optimized to operate from 2.0-4.0 GHz

Cleared by DoD/DFOISR for public release under 03-S-0475 on 4/3/03

L2086 Outline Drawing



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