



communications

Electron Devices

M1000

Low Band Microwave Power Module

- **Features:**
- **50-100 Watts Output Power**
- **20-35% Efficiency**
- **240 Cubic Inches**

Performance Characteristics

Frequency	2.0 to 8.0 GHz
RF Output Power	50 Watts (min)
RF Input Power*	10 to 28 dBm
Small Signal Gain	22 dB (min)
PRF*	Up to 10 KHz
Harmonics	0 dBc @ 2GHz
.....	-7 dBc @ 3GHz
AM/PM Conversion	6°/dB (max)
Spurious	-50 dBc (max)
Spectral Purity	-50 dBc (max)

Environment

Temperature	-30 to +55° C
.....	+70°C under TWT collector
Cooling	Conduction
Altitude	25,000 ft
Humidity	Up to 95% with condensation
Shock	10g, 11 msec
Acceleration	10 g's
Vibration	0.1g ² /Hz from 5 to 20 Hz
.....	0.02g ² /Hz from 20 to 2 KHz

Mechanical Description

Dimensions	12.0" x 10.5" x 2.0"
Weight	12.0 lbs/5.3 kgs. (max)
RF Input Connector	SMA
RF Output Connector	TNC
Control Input	15-Pin D-Subminiature

Interface

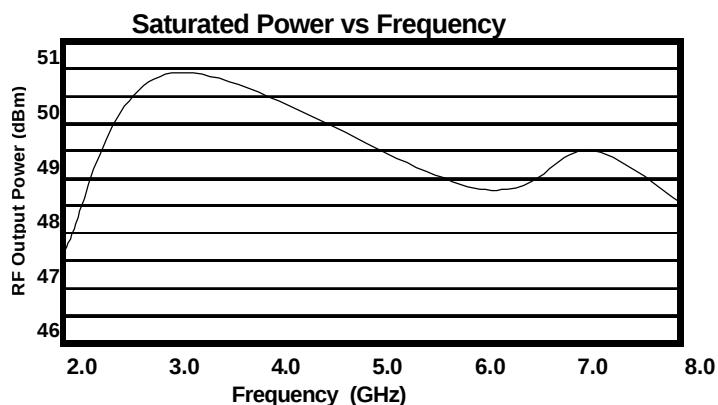
Prime Power	90-260 VAC 50/60 Hz, Single phase with power factor correction, 350 Watts (max)
Controls	Standby/Operate/RF On
Indicators	Warm-up Complete Operate Fault
Monitor	Helix Current
Low Voltage Output	+5 V, 75 mA



The M1000 represents the state of the art in low noise, compact, high efficiency, RF amplifiers for instrumentation and simulation applications. This MPM contains a TWT and power supply within a single conduction-cooled package for a variety of platforms.

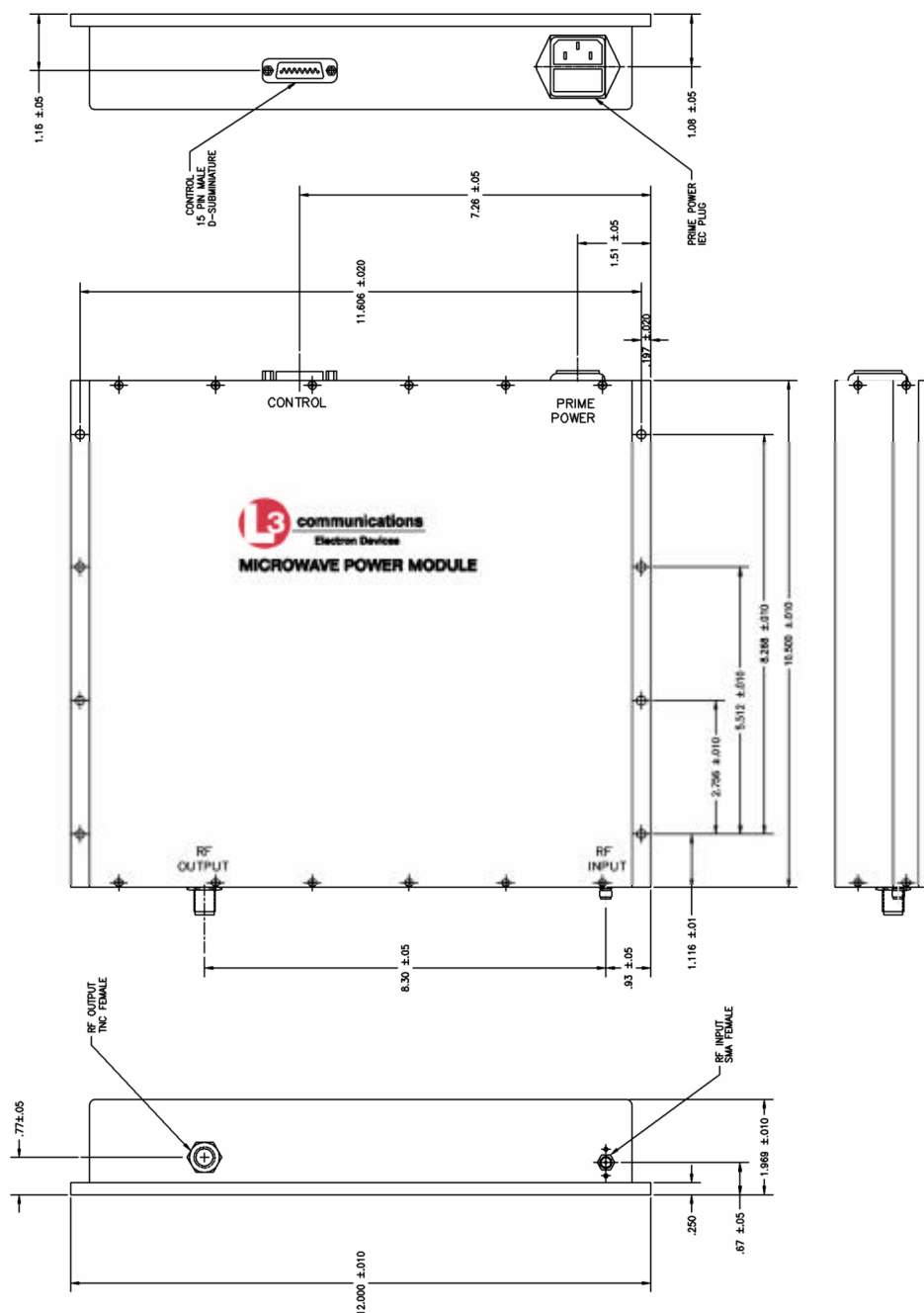
*NOTE: A built-in SSA with equalizer which provides for 0 ± 1 dBm input power is optional at additional cost. Also optional is a modulator with a PRF up to 10 KHz.

DSM10000605



Cleared by DoD/DFOISR for public
release under 05-S-2034 8/2/05

M1000 Outline Drawing



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



Electron Devices
 960 Industrial Road, San Carlos, CA 94070
 (650) 591-8411 Fax: (650) 508-1956
 Web Site: www.L-3com.com/edd
 E-mail: scl.marketing@L-3com.com