

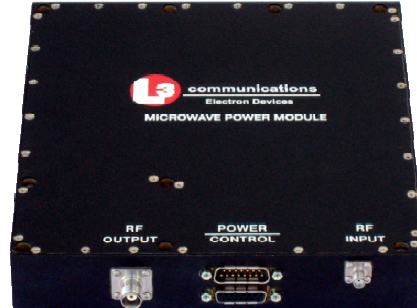


Electron Devices

M1225 High Band Microwave Power Module

Features

- 6 to 18 GHz
- 100-125 Watts Output Power
- Only 87 Cubic Inches



Performance Characteristics

Frequency.....	6.0 to 18.0 GHz
RF Output Power	
6.0 - 7.9 GHz.....	100 - 125 W min.
7.9 - 15.5 GHz.....	125 W min.
15.5 - 18.0 GHz.....	125 - 100 W min.
RF Input Power.....	0 ± 1 dBm
Small Signal Gain.....	55 dB min.
PRF.....	30 kHz max.
Harmonics @ 6 GHz.....	-4 dBc max.
AM/PM Conversion.....	6°/dB max.
Spurious.....	-45 dBc max.
Noise Power Density.....	-40 dBm/MHz max.

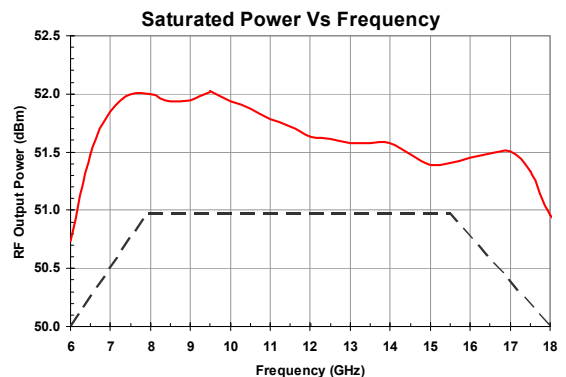
Environment

Temperature.....	-54 to +85 C
Cooling.....	Conduction
Altitude.....	up to 50,000 feet
Humidity.....	Up to 100%, with condensation
Shock.....	20 g, 11 msec
Acceleration.....	10 g's
Vibration.....	0.04 g ² /Hz from 80 to 350 Hz
	+3 dB/octave 20 to 80 Hz
	-3 dB/octave 350 to 2000 Hz

Mechanical Description

Dimensions.....	See Outline
Weight.....	6.5 lbs max.
RF Input Connector.....	SMA
RF Output Connector.....	TNC
Control Input.....	15 pin D-Sub female
Power Input.....	15 pin D-Sub male

The M1225 represents the state of the art in low noise, compact, high efficiency, wideband RF amplifiers for airborne, shipboard, and ground military applications. This MPM contains a TWT, an SSA and power supply within a single conduction-cooled package. DSM12251111



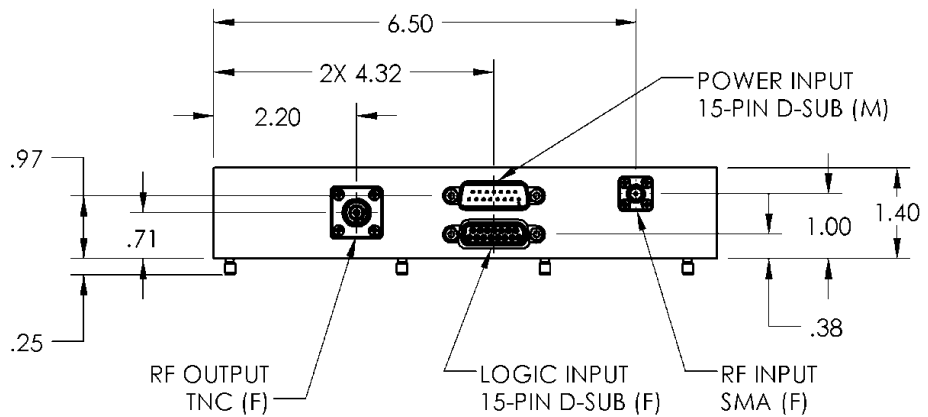
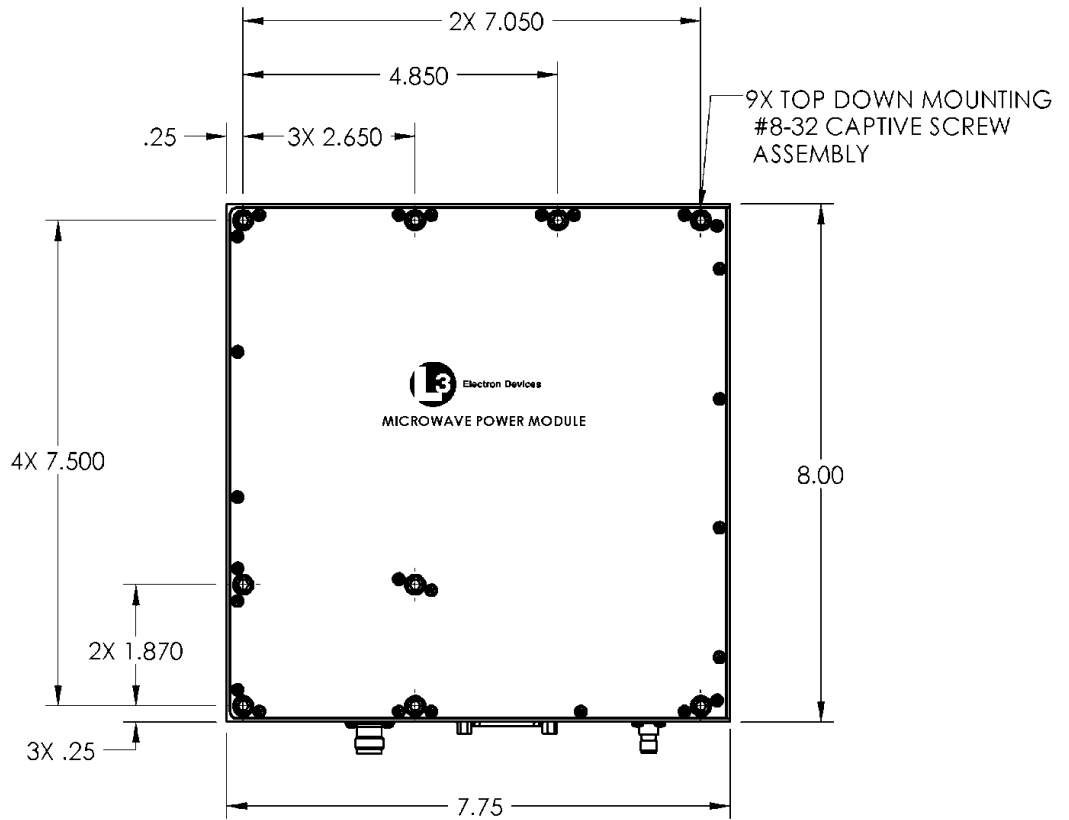
Interface

Prime Power, operating.....	+28 ± 3 VDC
	480 Watts max.
Prime Power, standby.....	50 Watts max.
Controls.....	High Voltage On/Off
	RF On/Off
	Battle Override
	Synchronization
Digital Indicators.....	Operate Indicator
	Warm-up Complete Indicator
	Fault Indicator
	High Voltage Indicator
Analog Monitor.....	Helix Current

For guidance only. See factory for latest performance parameters.

Cleared by DoD/OSR for public release
Under 12-S-0341 dated 11/18/11

M1225 Outline Drawing



POWER INPUT	
PIN #	DESCRIPTION
1 to 7	+28V
8	SPARE
9 to 15	+28V RTN

SIGNAL CONTROL		
PIN #	DESCRIPTION	NOTES
1	SPARE	
2	HELIX CURRENT MONITOR RETURN	GROUND
3	SPARE	
4	HIGH VOLTAGE ON/OFF	TTL HIGH = HV ON
5	RF ON/OFF	TTL HIGH = RF ON
6	WARM UP INDICATOR	TTL HIGH = WARM UP (HV DISABLED)
7	HIGH VOLTAGE INDICATOR	TTL HIGH = HV OK
8	SPARE	
9	HELIX CURRENT MONITOR	56 mV/mA
10	SPARE	
11	FAULT INDICATOR	TTL HIGH = FAULT (HV, RF OFF)
12	SIGNAL RETURN	GROUND
13	BATTLE OVERRIDE	TTL HIGH = BATTLE OVERRIDE
14	SPARE	
15	SYNCHRONIZATION	TTL HIGH = SYNC



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