



Electron Devices

M1225

High Band

Microwave Power Module

Features

- 6 to 18 GHz
- 100 to 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 W min.
7.9 - 15.5 GHz	125 W min.
15.5 - 18.0 GHz	100 W min.
RF Input Power	0 $\pm$ 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	-37 dBm/MHz max.

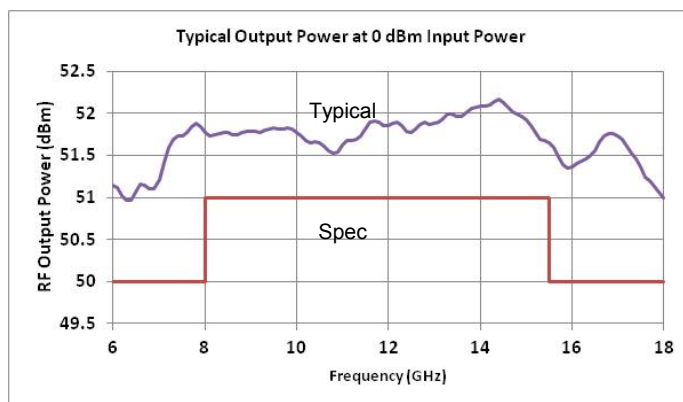
Environment

Temperature	-54 °C 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
Vibration	+3 dB/octave 20 to 80 Hz 0.04 g ² /Hz 80 to 350 Hz -3 dB/octave 350 to 2000 Hz

Mechanical Description

Dimensions	See Outline
Weight	6.5 lbs max.
RF Input Connector	SMA female
RF Output Connector	TNC female
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.

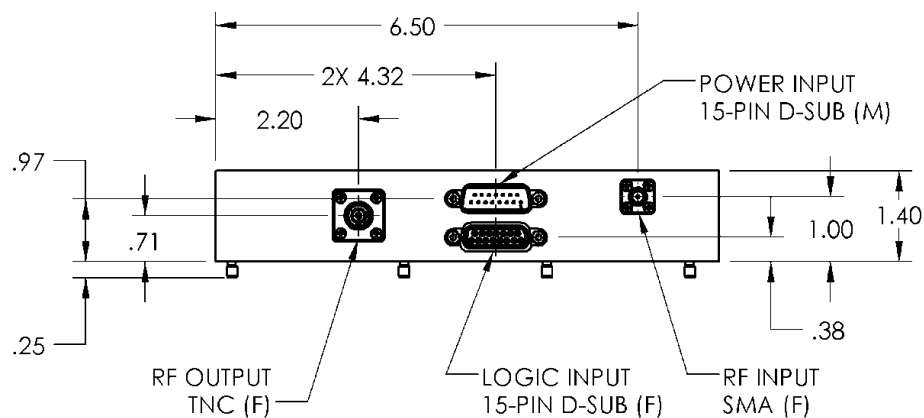
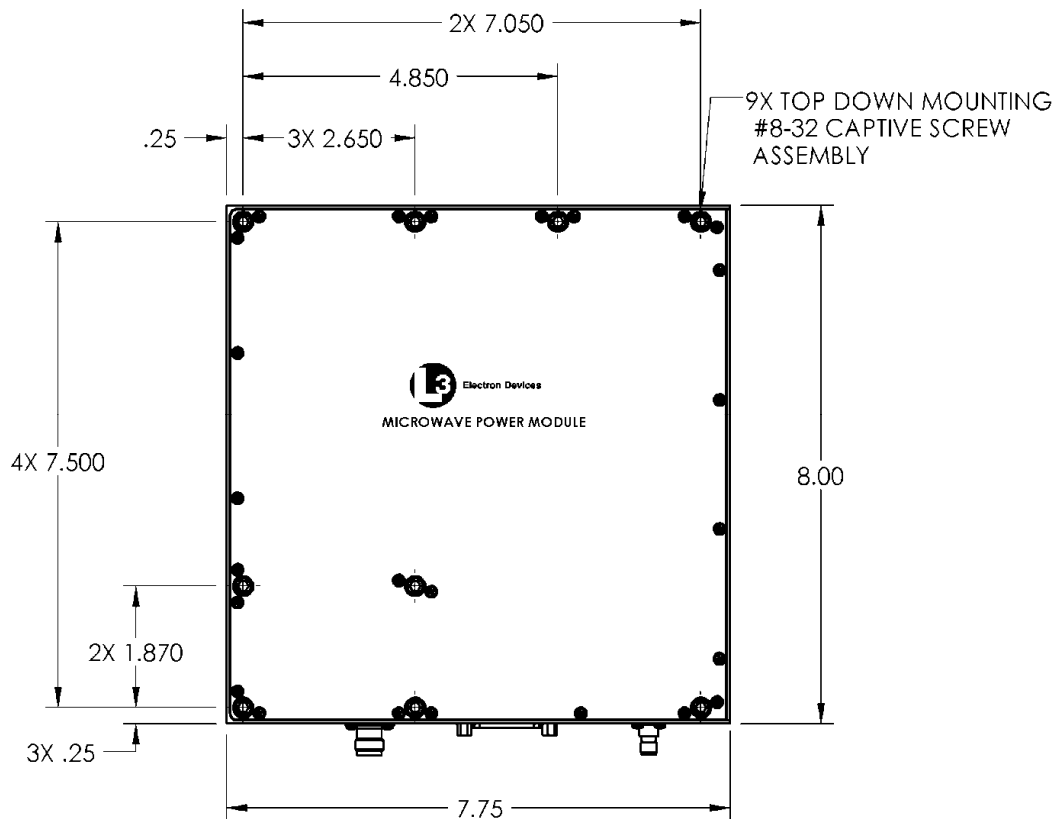


Interface

Prime Power, operating	+28 $\pm$ 3 VDC 500 Watts max.
Prime Power, standby	50 Watts max.
Controls	High Voltage On/Off RF On/Off Battle Override Synchronization
Digital Indicators	Warm-up Complete Indicator Fault Indicator High Voltage Indicator
Analog Monitor	Helix Current

This document consists of basic marketing information that is not defined as technical data under EAR Part 772.

M1225 Outline Drawing



POWER INPUT	
PIN #	DESCRIPTION
1 to 7	+28V
8	CHASSIS GROUND
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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