



Electron Devices

M1201

Low Band Microwave Power Module

Features

- 2 to 6 GHz
- 80 Watts Output Power
- Less than 90 Cubic Inches



Performance Characteristics

Frequency	2.0 to 6.0 GHz
RF Output Power	
2.0 - 2.5 GHz.....	50- 80 W min.
2.5 - 3.5 GHz.....	80 W min.
3.5 - 6.0 GHz.....	80 - 65 W min.
RF Input Power	0 $\pm$ 1 dBm
Small Signal Gain.....	50 dB min.
PRF	50 kHz max.
Harmonics, 2 GHz.....	0 dBc max.
Harmonics, 3 GHz.....	-7 dBc max.
Harmonics, 4 GHz.....	-14 dBc max.
AM/PM Conversion	.6°/dB max.
Spurious	-40 dBc max.
Noise Power Density.....	-40 dBm/MHz max.

Environment

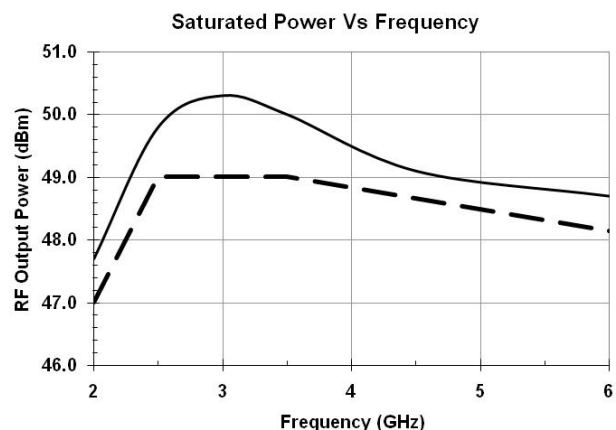
Temperature.....	-40 to +85°C
Cooling	Conduction
Altitude	up to 50,000 feet
Humidity	Up to 95%
Shock	20 g's, 11 msec
Acceleration	10 g's
Vibration	+3 dB/octave from 20 to 80 Hz
	0.04 g ² /Hz from 80 to 350 Hz
	-3 dB/octave from 350 to 2000 Hz

Mechanical Description

Dimensions	See Outline
Weight	6 lbs max.
RF Input Connector.....	SMA female
RF Output Connector	TNC female
Control Input.....	15 pin D-Sub male
Power Input.....	9 pin D-Sub male

The M1201 represents the state of the art in low noise, compact, high efficiency, wideband microwave power amplifiers for airborne, shipboard, and ground military applications. This MPM contains a TWT, an SSA and power supply within a single conduction-cooled package.

DSM12010514

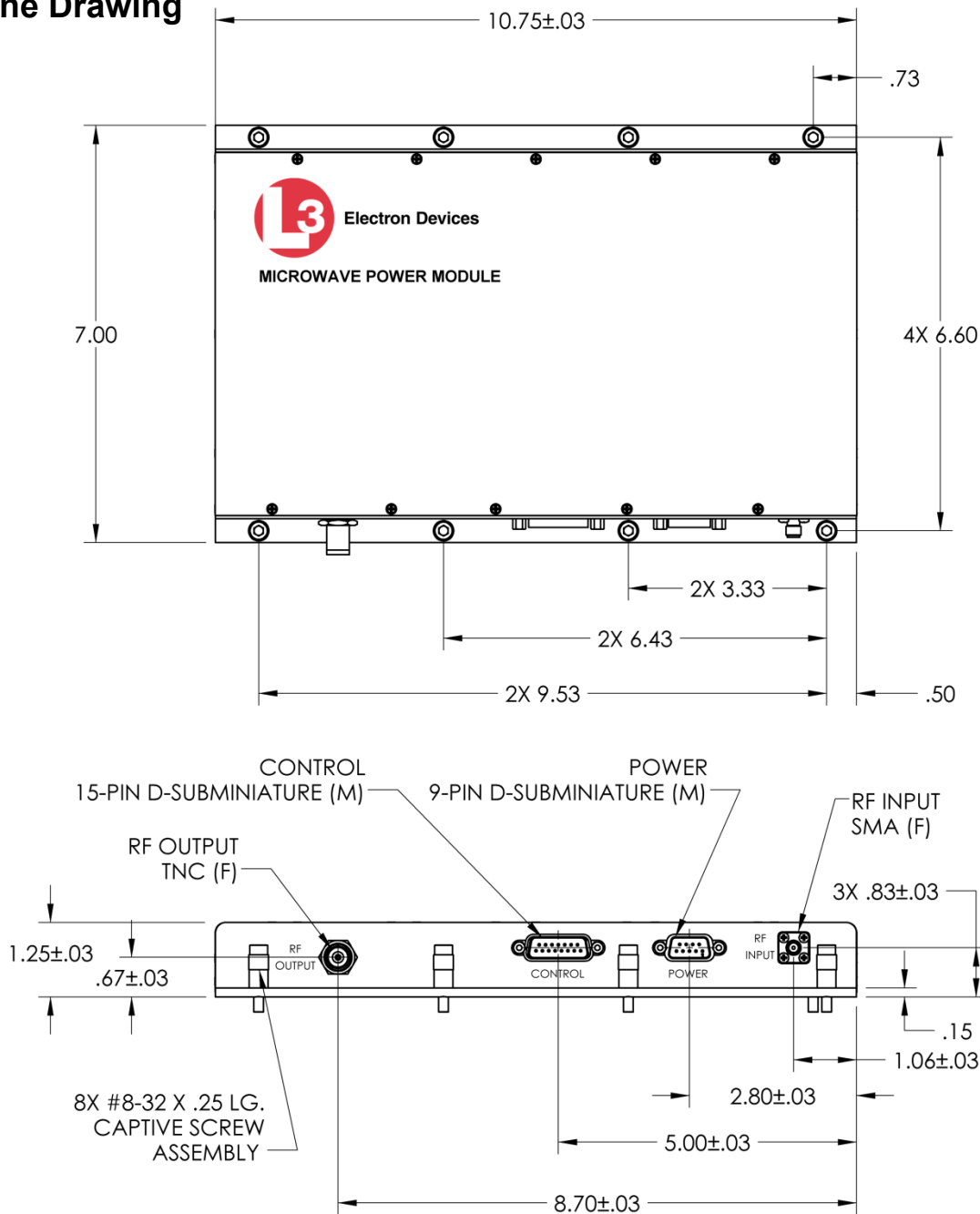


Interface

Prime Power, operating.....	+22-29 VDC
	425 Watts max.
Prime Power, standby	50 Watts max.
Controls.....	High Voltage On/Off
	RF On/Off
	Battle Override
Digital Indicators.....	Warm-up Complete Indicator
	Fault Indicator
	High Voltage Indicator
Analog Monitor	Helix Current

Cleared by DoD/OSR for public release
under 14-S-1723 dated 6/17/14

M1201 Outline Drawing



CONTROL CONNECTOR PINOUT			
PIN #	FUNCTION	SIGNAL FORMAT	NOTE
1	SPARE		
2	HELIX CURRENT SENSE RETURN	GROUND	
3	SPARE		
4	HIGH VOLTAGE CONTROL INPUT	TTL	LOGIC 1 = HV ON
5	RF CONTROL (BLANKING) INPUT	TTL	LOGIC 1 = RF ON
6	WARM-UP INDICATOR	TTL	LOGIC 1 = WARMUP
7	HIGH VOLTAGE INDICATOR	TTL	LOGIC 1 = HIGH VOLTAGE OK
8	SPARE		
9	HELIX CURRENT SENSE OUTPUT	ANALOG	56 mV/mA
10	SPARE		
11	MPM STATUS OUTPUT	TTL	LOGIC 1 = FAULT
12	LOGIC RETURN	GROUND	
13	BATTLE OVERRIDE INPUT	TTL	LOGIC 1 = OVERRIDE
14	SPARE		
15	RESERVED		

POWER CONNECTOR PINOUT		
PIN #	FUNCTION	SIGNAL FORMAT
1 - 4	+28 VDC	POWER
5	SPARE	
6 - 9	+28 VDC RETURN	GROUND



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