



Electron Devices

M1290

Millimeter Microwave Power Module

Features

- 30 GHz to 31 GHz
- 25 W of linear power
- Dual package



Performance Characteristics

Frequency	30 GHz to 31 GHz
RF Output Power (linear)	25 W min
RF Input Power	-18 dBm max
Small Signal Gain	61 dB min
Noise Power Density Beam On	-28 dBm/MHz
Beam Off	-90 dBm/MHz
Intermodulation at rated power	-22 dBc max
AM/PM Conversion	2°/dB max
AM/AM Conversion	0.7-1.2 dB/dB max
Spurious (>1 MHz from carrier)	-45 dBc max
Group Delay Variation	1.5 nsec max
VSWR Input	2.0:1 max
Output	2.5:1 max
Load (no damage)	3.0:1 max

Environment

Temperature	-40 °C to +85 °C
Cooling	Conduction
Altitude	45,000 ft.
Humidity	Up to 97%, non-condensating
Shock	20 g, 11 msec
Acceleration	8 g
Vibration	6 grms, 20 Hz to 2,000 Hz
	80-350 Hz: Mil-Std-810, Method 514.4
	-3dB/octave from 20 Hz to 80 Hz
	-3dB/octave from 350 Hz to 2,000 Hz

L-3's M1290 represents the state of the art in low noise, compact, high efficiency, millimeter wave amplifiers for airborne, shipboard, and ground military Ka band communications applications. This MPM contains a TWT and a linearizer within one package and a power supply within the other package.

Interface

Prime Power	270 VDC (250-280 VDC)
	300 W max
Controls	HV on/off, RF on/off
Indicators	Warm-up Indicator
	High Voltage Indicator
	Fault Indicator

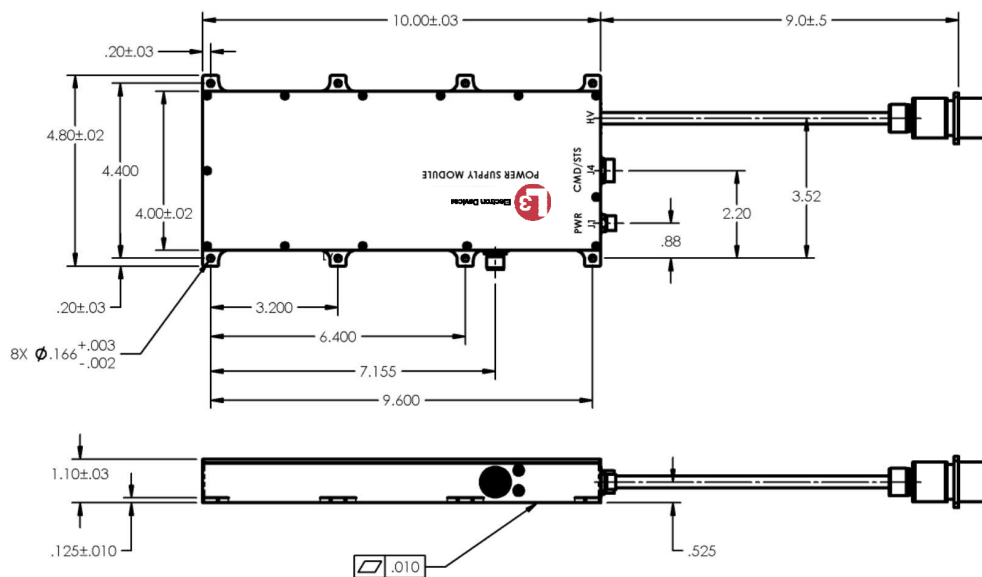
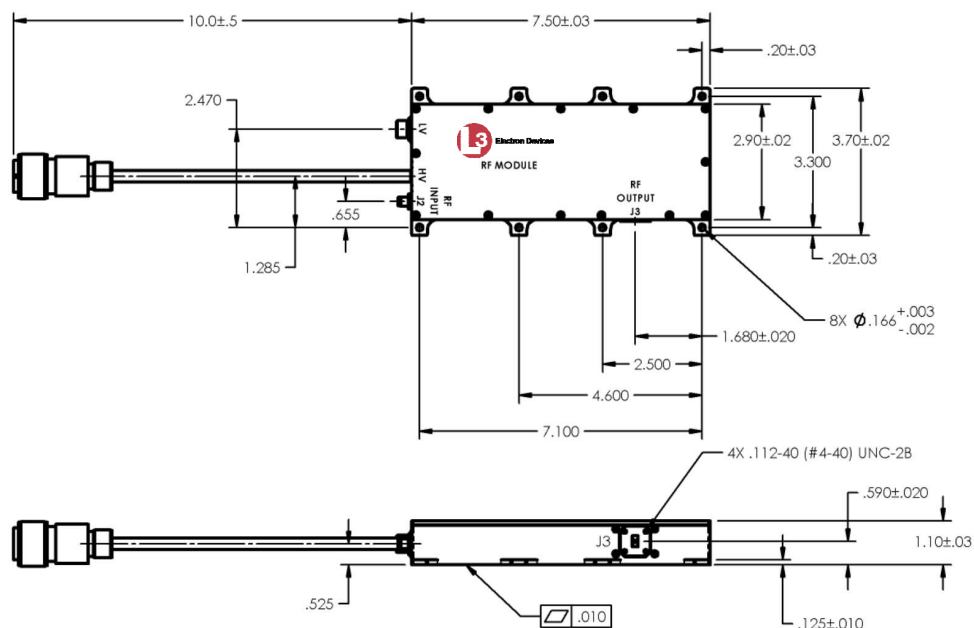
Mechanical Description

Dimensions	See outline
Weight	5.2 lb. max
RF Input Connector	2.9 mm (K) female
RF Output Connector	WRD-28
Prime Power Connector	Glenair 801-009-07ZN 6-7PA
Control Connector	Glenair 801-009-07ZN9-19SA

This document consists of basic marketing information that is not defined as technical data under EAR Part 772. Rev Feb16

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M1290 MPM Outline Drawing



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



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