



communications

Electron Devices

M1290

Millimeter Microwave Power Module

Features

- 30 to 31 GHz
- 25 Watts of Linear Power
- Dual Package



Performance Characteristics

Frequency.....	30 to 31 GHz
RF Output Power (linear).....	25 Watts 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 to +85° C
Cooling.....	Conduction
Altitude.....	45,000 ft.
Humidity.....	Up to 97%, non-condensating
Shock.....	20 g, 11 msec
Acceleration.....	8 g's
Vibration.....	6 grms, 20-2000 Hz
	80-350 Hz: Mil-Std-810, Method 514.4
	-3dB/octave from 20 to 80 Hz
	-3dB/octave from 350 to 2000 Hz

The 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. DS12900807

Interface

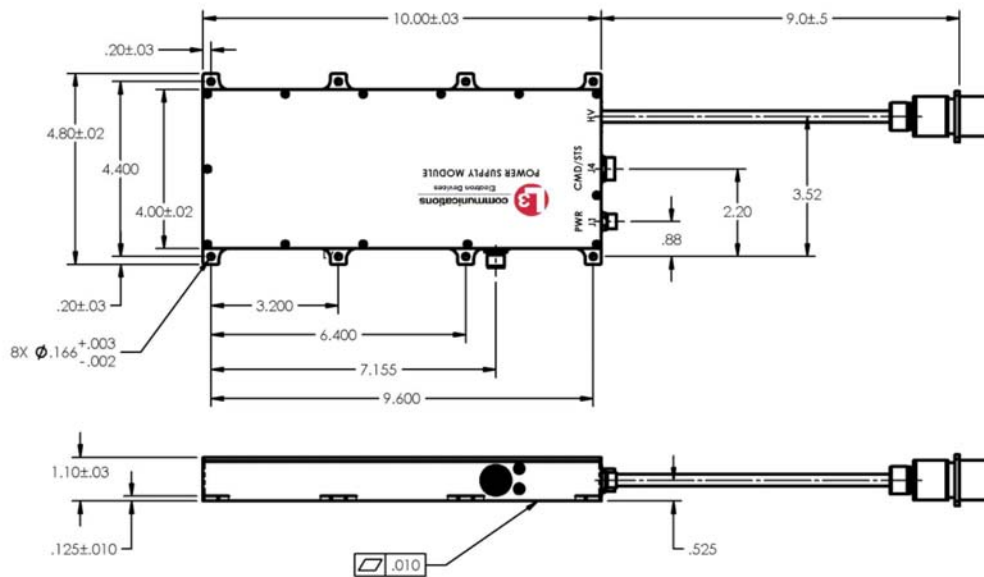
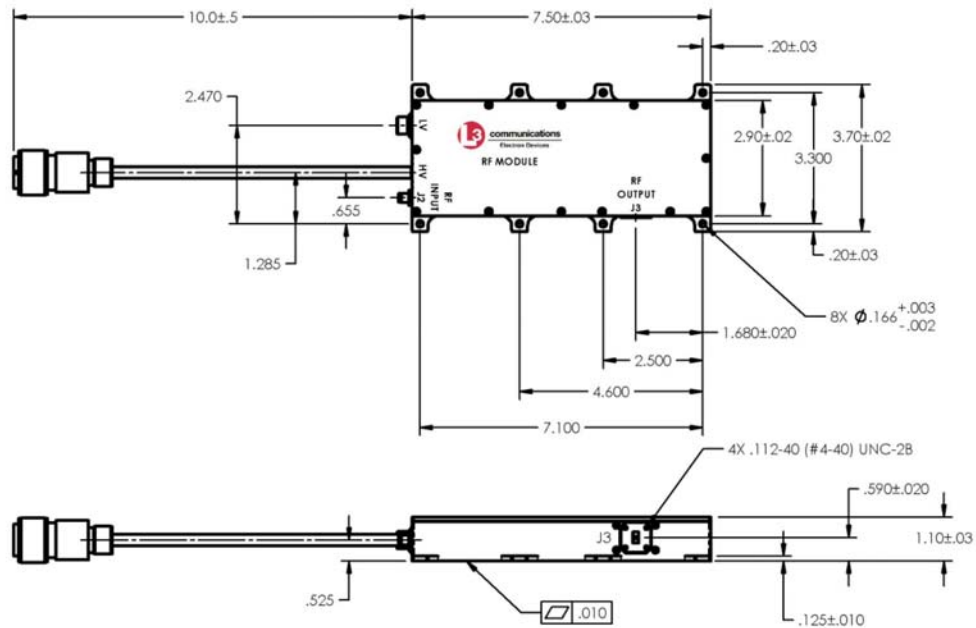
Prime Power.....	270 VDC (250-280 VDC)
	300 Watts max
Controls.....	HV On/Off, RF On/Off
Indicators.....	Warm-up Indicator
	High Voltage Indicator
	Fault Indicator

Mechanical Description

Dimensions.....	See Outline
Weight.....	5.2 lbs 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

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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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