



Electron Devices

PRELIMINARY

M1291 Millimeter Microwave Power Module

Features

- 29 to 36 GHz
- Output Power 90 Watts Minimum
100 Watts Nominal



Performance Characteristics

Frequency	29 to 36 GHz
RF Output Power	90 Watts min 100 Watts nominal
RF Input Power	-10 dBm max
Small Signal Gain	63 dB min
Noise Power Density Beam On	-30 dBm/MHz
Beam Off	-90 dBm/MHz
Spurious (>1 MHz from carrier)	-60 dBc max
VSWR Input	2.0:1 max
Output	2.0:1 max
Load (no damage)	2.9:1 max

Environment

Temperature	-55 to +85° C
Cooling	Conduction
Altitude	65,000 ft.
Humidity	Up to 100%, condensating
Shock	20 g, 11 msec
Acceleration	8 g's
Vibration	6.18 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 M1291 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, an SSA and a power supply. For applications requiring high linearity, an alternate version is available with 50 watts of linear output power.

DS12910213

Interface

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

Mechanical Description

Dimensions	8.0 x 9.0 x 1.5
Weight	7 lbs max
RF Input Connector	2.9 mm (K) female
RF Output Connector	WRD-28
Prime Power Connector	D38999/24WB99PN
Control Connector	D38999/24WC35PN

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