

Microwave Power Module

M1291

Stellant's 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 Microwave Power Module (MPM) contains a TWT, an SSA and a power supply. For applications requiring high linearity, an alternate version is available with 50 W of linear output power.

PERFORMANCE

Frequency	28.5 GHz to 40 GHz
RF Output Power	80 W min (28.5 GHz to 36 GHz)
	40 W min (36 GHz to 40 GHz)
RF Input Power	0 dBm max
Small Signal Gain	50 dB min
Spurious	-45 dBc max (>1 MHz from carrier)
Noise Power Density	
Beam On	-30 dBm/MHz
Beam Off	-90 dBm/MHz
VSWR Input	2.0:1 max
Output	2.0:1 max
Load (no damage)	3.0:1 max

INTERFACE

Prime Power, operating	270 VDC (250 VDC to 280 VDC)
	380 W max
Prime Power, standby	50 W max
Controls	HV on/off, RF on/off
Digital Indicators	Warm-up complete indicator
	Fault indicator
	High-voltage indicator
Analog Monitor	Helix current

ENVIRONMENT

Temperature	-40 °C to +85 °C
Cooling	Conduction
Altitude	50,000 ft.
Humidity	Up to 100%, with condensation
Shock	20 g, 11 ms
Acceleration	8 g
Vibration	+3 dB/octave from 20 Hz to 80 Hz
	0.04 g ² /Hz from 80 Hz to 350 Hz
	-3 dB/octave from 350 Hz to 2,000 Hz

MECHANICAL DESCRIPTION

Dimensions	See outline
Weight	7.7 lb. max
RF Input Connector	2.9 mm (K) female
RF Output Connector	WR-28
Control Input Connector	D38999/20WC35PN
Power Input Connector	D38999/20WB99PN



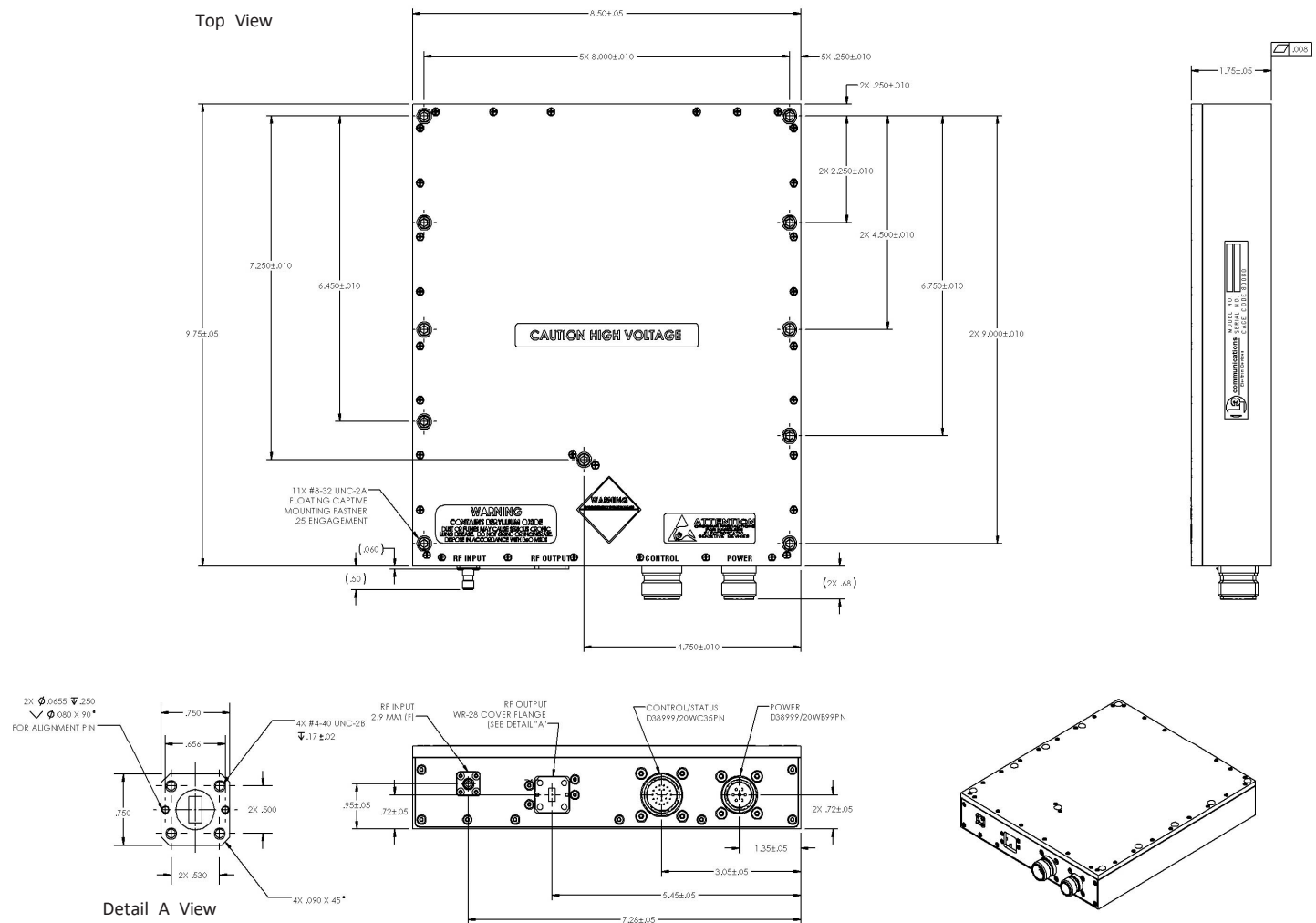
KEY FEATURES

- * 28.5 GHz to 40 GHz
- * RF Output Power:
 - * 80 W min (28.5 GHz to 36 GHz)
 - * 40 W min (36 GHz to 40 GHz)

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Outline Drawing- All Dimensions in Inches



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