



communications

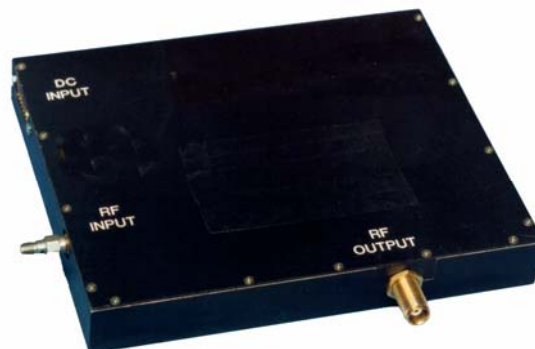
Electron Devices

M1220

High Band

Microwave Power Module

- **Features**
- **60-100 Watts Output Power**
- **20 - 35% Efficiency**
- **<50 Cubic Inches**



Performance Characteristics

Frequency.....	6.0 to 18.0 GHz
RF Output Power.....	60-100 Watts (min)
RF Input Power.....	0 $\pm$ 1 dBm
Small Signal Gain.....	50 dB (min)
PRF	50 kHz (max)
Harmonics @ 6 GHz.....	-3 dBc (max)
@ 8 GHz.....	-5 dBc (max)
@10 GHz.....	-11 dBc (max)
AM/PM Conversion.....	6°/dB (max)
Spurious	-50 dBc (max)
Spectral Purity	-45 dBc (max)
Noise Power Density	-38dBm/MHz (max)

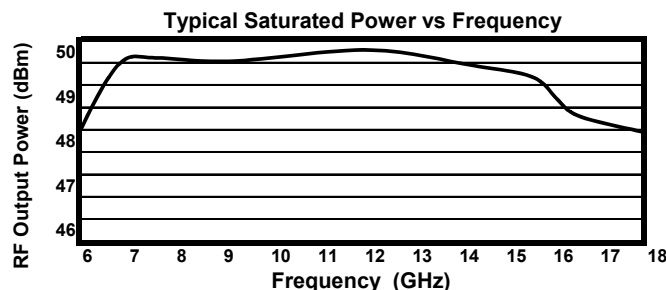
Environment

Temperature	-54 to +85°C
Underneath TWT Collector.....	+95°C max
Cooling	Conduction
Altitude.....	70,000 feet
Humidity.....	Up to 100%, with condensation
Shock	20 g, 11 msec
Acceleration.....	10 g's
Vibration	0.04 g ² /Hz from 80 to 350 Hz
	-3dB/octave 20 to 80 Hz
	-3dB/octave 350 to 2000 Hz

Mechanical Description

Dimensions.....	7.5" x 6.25" x 1.0"
Weight	3.75 lbs (max)
RF Input Connector	SMA
RF Output Connector	TNC
DC Input	15-Pin D-Subminiature

The M1220 represents the state of the art in low noise, compact, high efficiency, wideband RF amplifiers for airborne, shipboard, and ground military applications. This MPM contains a TWT, an SSA and power supply within a single conduction-cooled package. DS12200304

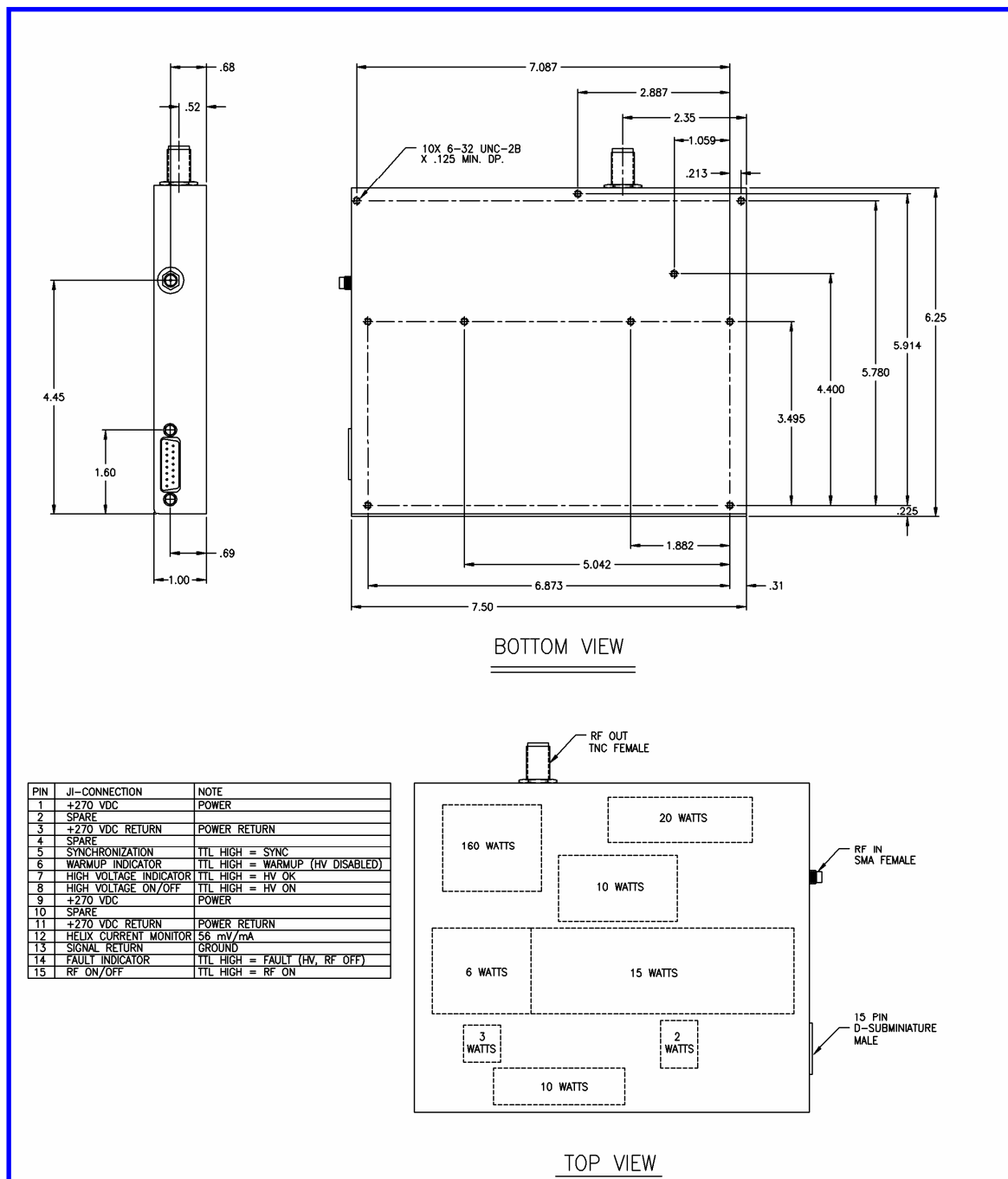


Interface

Prime Power, operating.....	270 VDC
.....	375 Watts (max)
Prime Power, standby	40 Watts (max)
Controls	Standby/Operate, Radiate
Digital Indicators.....	Warm-up Complete Indicator
	Operate Indicator
	Fault Indicator
	High Voltage Indicator
Analog Monitor	Helix Current

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M1220 Outline Drawing



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