



**communications**

Electron Devices

# M1020 High Band Microwave Power Module

### Features:

- **60-100 Watts Output Power**
- **20 - 35% Efficiency**
- **200 Cubic Inches**

### Performance Characteristics

Frequency .....	6.0 to 18.0 GHz
RF Output Power .....	60 Watts (min)
RF Input Power .....	20 to 30 dBm
Small Signal Gain.....	30 dB (min)
PRF .....	up to 10 KHz
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.....	-50 dBc (max)

### Environment

Temperature.....	-30 to +70° C
Cooling .....	Conduction
Altitude .....	15,000ft.
Humidity .....	Up to 95%, with condensation
Shock .....	10 g, 11 msec
Acceleration .....	10 g's
Vibration .....	0.1 g <sup>2</sup> /Hz from 5 to 20 Hz
.....	0.02 g <sup>2</sup> /Hz from 20 to 2 KHz

### Mechanical Description

Dimensions .....	10.3" x 9.6" x 2.0"
Weight .....	9.9 lbs/4.5 kgs. (max)
RF Input Connector .....	SMA
RF Output Connector .....	TNC
DC Input .....	15-Pin D-Subminiature

### Interface

Prime Power .....	90-260VAC 50/60 Hz, Single phase with power factor correction, 375 Watts (max.)
Controls .....	Standby/Operate RF On
Indicators .....	Warm-up Complete Operate Fault
Monitor.....	Helix Current
Low Voltage Output.....	+5V, 75mA

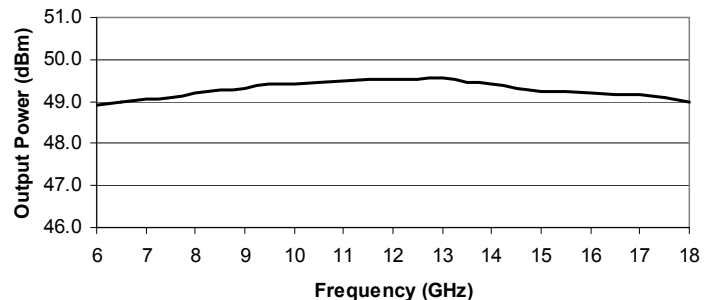


The M1020 represents the state of the art in low noise, compact, high efficiency, RF amplifiers for instrumentation and simulation applications. This MPM contains a TWT and power supply within a single conduction-cooled package for a variety of platforms.

NOTE: A built-in SSA with equalizer which provides for  $0 \pm 1$ dBm input power is optional at additional cost. Also optional is a modulator with a PRF up to 10 KHz.

DSM1020\_0209

**Typical Saturated Power vs. Frequency**



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