communications
Electron Devices

M1025
Ku-Band Microwave Power Module (MPM)

Features:

- ***80 Watts Output Power***
- ***>25% Efficiency***
- ***200 Cubic Inches***

Performance Characteristics

Frequency:
- Standard ..... 14.0 to 14.5 GHz
- Extended ..... 12.75 to 14.5 GHz

RF Output Power ..... 80 Watts (min)
RF Input Power ..... 22 ± 2 dBm
Small Signal Gain ..... 30 dB (min)
Gain Var. Vs. Freq. ..... 2.0 dB/500 MHz (max)
Intermodulation ..... -24 dBc at 7 dB backoff
Noise Power Density ..... -95 dBW/4 KHz
Group Delay ..... 2 nsec pk-pk (max)
Harmonics ..... -12 dBc (max)
AM/PM Conversion ..... 5°/dB (max)
Spurious ..... -60 dBc (max)
Phase Noise ..... -50 dBc (max)

Environment

Temperature ..... -30 to +55° C
Cooling ..... Conduction
Altitude ..... 15,000 feet
Humidity ..... Up to 95%
Shock & Vibration ..... Normal Transportation

Interface

Prime Power ..... 90–260VAC 50/60 Hz single phase with power factor correction 325 Watts (max)
Controls ..... Standby/Operate
Indicators ..... Warm-up Complete, Operate, Fault
Monitor ..... Helix Current
Low Voltage Output ..... +5V, 75 mA

The M1025 represents the state of the art in low noise, compact, high efficiency, RF amplifiers for satellite communications. This MPM contains a TWT and power supply within a single conduction-cooled package for indoor or outdoor use. Three output power levels are offered for customized use. A forced air cooling option is available. DSM10251102

Mechanical Description

Dimensions ..... 10.3" x 9.6" x 2.0"
..... 260mm x 240 mm x 50mm
Weight ..... 9.9 lbs/4.5 kgs. (max)
RF Input Connector ..... SMA
RF Output Connector ..... TNC
DC Input ..... 15-Pin D-Subminiature

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