

# FREQUENCY SYNTHESIZER

456080

4000 - 4500 MHz

## Features

- Low Phase Noise
- Low Spurious Outputs
- High Reliability
- Internal Reference Model

## Specifications

CHARACTERISTIC	TYPICAL Ta = +25 °C	MIN/MAX Ta = -10°C to +60 °C
Frequency (MHz)	4000 - 4500	4000 - 4500
Output Power (dBm)	+13	0 / +17.0
Step Size (MHz)	10	—
Stability (ppm)	±10	—
Harmonics (dBc)	-25	-20 Max.
Spurious (dBc)	-70	—
Phase Noise (4000 MHz)	-49 dBc/Hz @ 10 Hz -79 dBc/Hz @ 100 Hz -86 dBc/Hz @ 1 kHz -89 dBc/Hz @ 10 kHz -122 dBc/Hz @ 100 kHz -140 dBc/Hz @ 1 MHz	—
Power	Vdc mA	+15 200

NOTE: Care should always be taken to effectively ground the case of each unit.

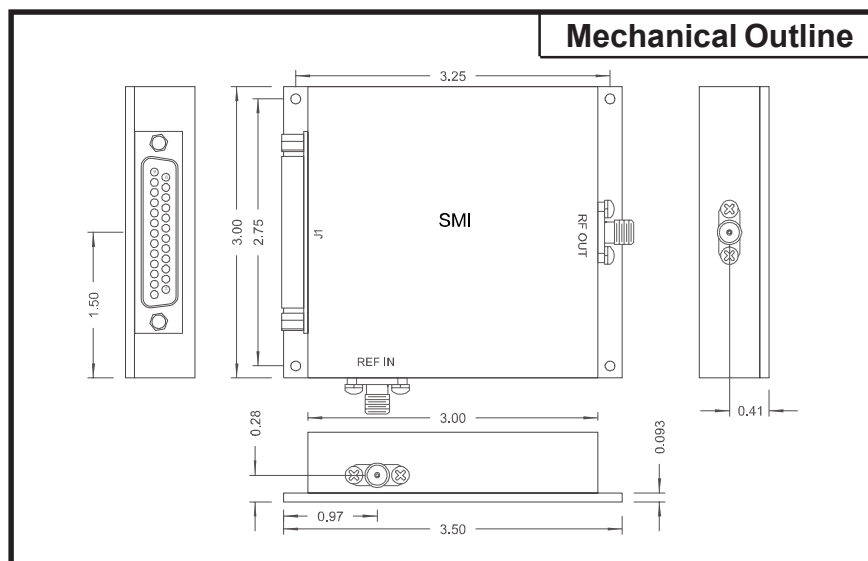
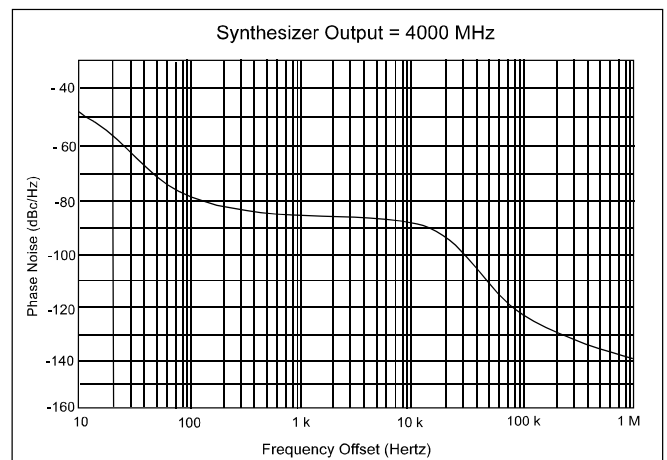
## Absolute Maximum (No Damage) Ratings

Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -62°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +24 Volts

**Spectrum Microwave** can design a synthesizer to meet your requirements, from low-cost surface mount commercial units to complex multiple conversion designs for military and space applications.

We have delivered units with step sizes from 0.002 Hz to 200 MHz, 5-microsecond switching speeds, automatically switched back-up references, direct digital synthesis, and many other special features.

## Typical Performance Data



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 Rev. 3/30/10

www.SpectrumMicrowave.com Spectrum Microwave · 2707 Black Lake Place · Philadelphia, Pennsylvania 19154 · PH (215) 464-4000 · Fax (215) 464-4001