

# COAXIAL RESONATOR OSCILLATOR

**Model 511070**

**1600 MHz**

## Features

- Low Phase Noise Bipolar Transistor
- Rugged Construction for Extreme Environmental Conditions
- High Frequency Stability
- Voltage Tuning Option

## Specifications

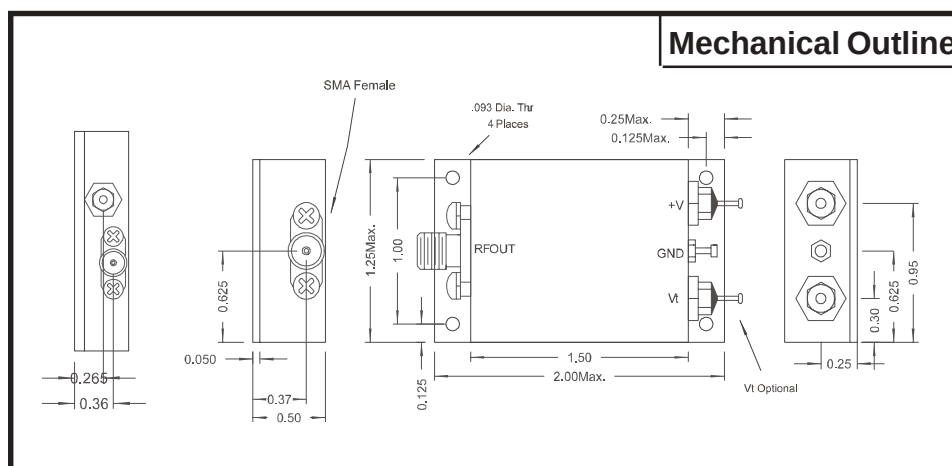
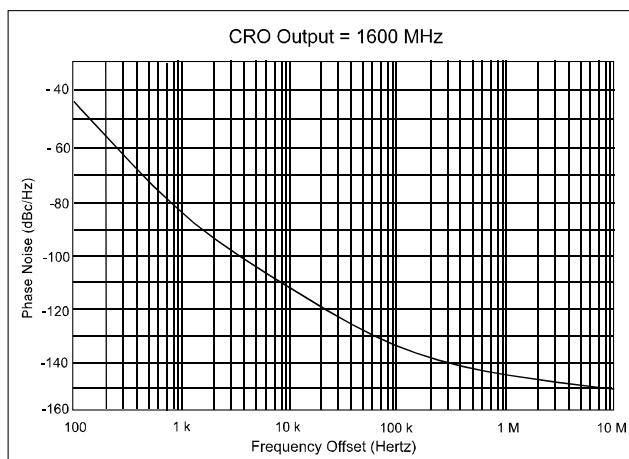
| CHARACTERISTIC      | TYPICAL<br>Ta = 25 °C                                                                                             | MIN/MAX<br>Ta = -10 °C to +60 °C |
|---------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Frequency           | 1600 MHz                                                                                                          | 1600 MHz                         |
| Output Power (dBm)  | +10                                                                                                               | +13 Max.                         |
| Spurious (dBc)      | -60                                                                                                               | -60                              |
| Phase Noise (dB)    | -44 dBc/Hz @ 100 Hz<br>-84 dBc/Hz @ 1 KHz<br>-111 dBc/Hz @ 10 KHz<br>-134 dBc/Hz @ 100 KHz<br>-145 dBc/Hz @ 1 MHz |                                  |
| VSWR                | 1.5                                                                                                               | 2.0                              |
| Harmonics (dBc)     | -20                                                                                                               | -20                              |
| Frequency Pushing   | +/- 0.1% / Volt                                                                                                   | +/- .02% / Volt                  |
| Frequency Pulling   | +/- 0.02%                                                                                                         | +/- 0.03%                        |
| Temperature Drift   | +/- 0.01%                                                                                                         | +/- 0.02%                        |
| Storage Temperature | -55 °C                                                                                                            | +125 °C                          |
| Supply Power        | DC 15<br>mA 150                                                                                                   | 15<br>155                        |

Spectrum Microwave CROs produce impressive frequency stability and phase noise when used in a properly designed oscillator circuit. The units can be voltage tuned with a varactor over 5% bandwidth and still retain excellent stability and phase noise performance.

## Maximum Ratings

Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -62°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +20 Volts  
 Maximum DC Tuning Voltage ..... +20 Volts  
 Minimum DC Tuning Voltage ..... 0 Volts

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



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