

# DIELECTRIC RESONATOR OSCILLATOR

**Model 512134**

**3000 - 4000 MHz**

## Features

- Low Noise Bipolar Transistor
- Rugged Construction for Extreme Environmental Conditions
- High Frequency Stability
- Mechanically Tuned

## Specifications

| CHARACTERISTIC                               | TYPICAL<br>Ta = +25 °C | MIN/MAX<br>Ta = -55°C to +85 °C |
|--|------------------------|---------------------------------|
| Frequency                                    | 3000 - 4000 MHz        | 3000 - 4000 MHz                 |
| Output Power (dBm)                           | +10.0                  | 0 / +17.0                       |
| Power Flatness (dBm)                         | +/- 1.5                | +/- 3.0                         |
| Frequency Stability<br>(ppm)/ °C             | 4                      | 3 to 5                          |
| Harmonics (dBc)                              | 20                     | 15 Max.                         |
| Spurious (dBc)                               | -80                    | -80 Max.                        |
| Phase Noise (3000 MHz)<br>@ 100 KHz (dBc/Hz) | -131                   | -129 Max.                       |
| Load VSWR                                    | 1.5:1                  | 2.0:1 Max.                      |
| Power  | Vdc<br>mA              |                                 |
|  | +15<br>70              | +15 to +20<br>90 Max.           |

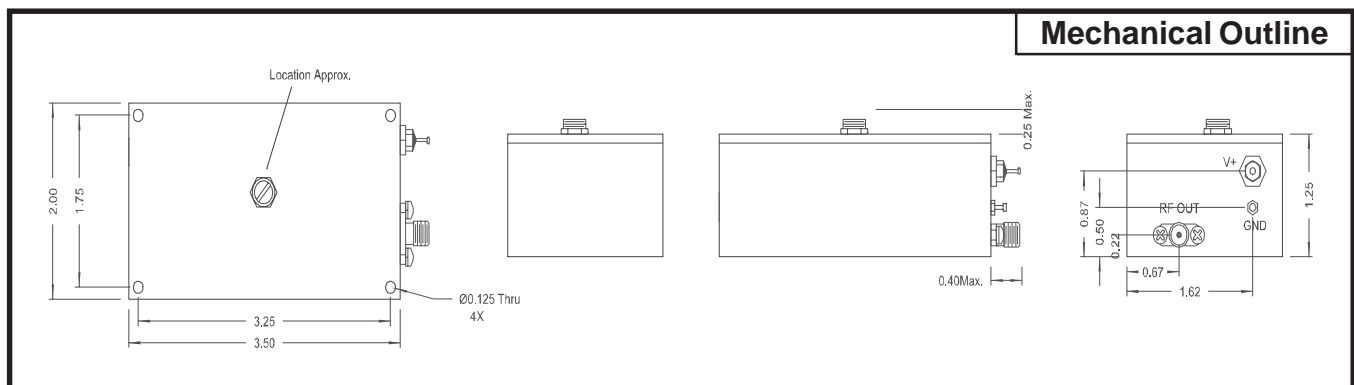
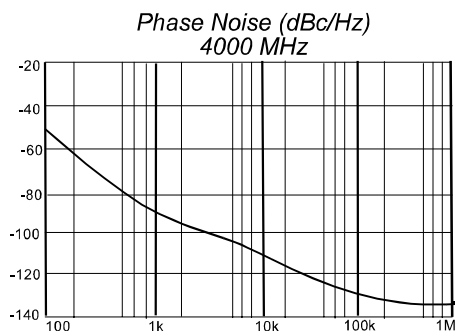
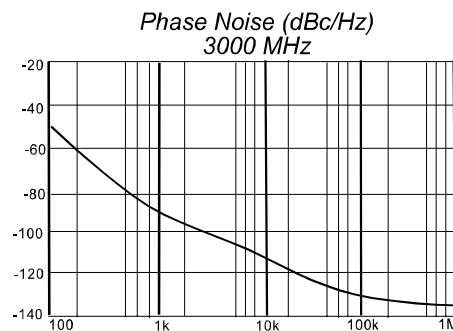
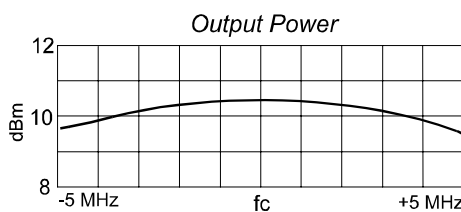
## Absolute Maximum Ratings

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

## Typical Performance Data

| Phase Noise | Typical  | Typical  |
|-------------|----------|----------|
| Offset      | 3000 MHz | 4000 MHz |
| 1 kHz       | -91      | -90      |
| 10 kHz      | -112     | -110     |
| 100 kHz     | -131     | -130     |



## Mechanical Outline



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