

**INPUT****Frequency**

5 MHz, -3 to +11dBm into 50 ohms  
 100 MHz locks to input signal when present

**OUTPUT – 100 MHz****Frequency**

100 MHz, +10dBm ±2 dB, 10 dB minimum return loss into 50 ohms

**Output Phase Noise L(f) 100 MHz****Locked to Internal 5 MHz**

10 Hz -112 dBc/Hz  
 100 Hz -120 dBc/Hz  
 1 kHz -140 dBc/Hz  
 10 kHz -160 dBc/Hz

**OUTPUT – 5 MHz****Frequency**

5 MHz, +10dBm ±2 dB, 20 dB minimum return loss into 50 ohms

**Output Phase Noise L(f) 5 MHz**

1 Hz -112 dBc/Hz  
 10 Hz -137 dBc/Hz  
 100 Hz -149 dBc/Hz  
 1 kHz -155 dBc/Hz  
 ≥10 kHz -160 dBc/Hz

**Harmonics, Subs, Spurious (5 & 100)**

-25, -85, -85 dBc

**Loop BW**

Target Bandwidth: 60 Hz, typical, type 2 Loop

**STABILITY****Aging**

±3 x 10<sup>-10</sup> per day at time of shipment  
 ±3 x 10<sup>-8</sup> per year

**Temperature Stability**

±1 x 10<sup>-8</sup> without external input  
 -10 to +70°C, (Ref. +25°C)

**Stability vs. Supply V**

±1 x 10<sup>-9</sup> / %

**Phase Lock Voltage Monitor**

Voltage monitor pin supplied, 0 to +7.5 VDC range

**Warm-Up**

7 minutes to 1 x 10<sup>-7</sup> of final frequency at 30 minutes at +25°C

**MECHANICAL****Dimensions**

2.5 x 6.0 x 0.9", with brackets

**Connectors**

SMA's  
 9 Pin D-subminiature, male

**Weight**

1.5 ±0.2 lbs

**Packaging**

Nickel plated machined brass housing

**POWER REQUIREMENTS****Supply Voltage**

+12 ±.5VDC

**Warm-Up Power**

12.6 Watts maximum at start-up for 5 minutes at +25° C

**Total Power**

6 Watts, typical, steady state +25°C

**ADJUSTMENT****Electrical Tuning**

±0.3 to ±0.6 ppm, 0 to +7 VDC  
 ±0.05 ppm of nominal at +3.5 volts, at room temperature, at time of shipment  
 Negative Slope  
 Suitable for use with a 100 k ohm pot

**V Reference**

+7 VDC min., buffered by  
 10 k ohms

**Internal 100 MHz Tuning**

8 to 11 ppm, 0 to +7.5 VDC

**Internal External Status Output**

External 5/10 MHz +35 to +5.2 VDC  
 Internal 5/10 MHz 0 to +0.8VDC

**STATUS AND SELECTION****Test Data (Non-Deliverable)**

Output signal power level, spurious signal levels, absolute freq at Vtune, tuning, aging, phase noise, temp, locking voltage, external  
 Input return loss, external lock, warm-up current and operating current.

**Test Data (Deliverable)**

Aging, Phase Noise at 5 and 100 MHz

(\*J3 is 5 MHz output, enabled during manufacture only)

REV	DATE	REVISION RECORD	DWN	AUTH
-	03-28-13	Draft	Liz	



**Wenzel Associates, Inc.**

Austin, Texas

Title:

**5 and 100 MHz Phase Locked Oscillator**

P/N:

**501-26708**

Rev:

-

Date:

**03-28-13**

Drawn:

Ref:

Tolerances:  
(except as noted)  
Dimensions are in inches

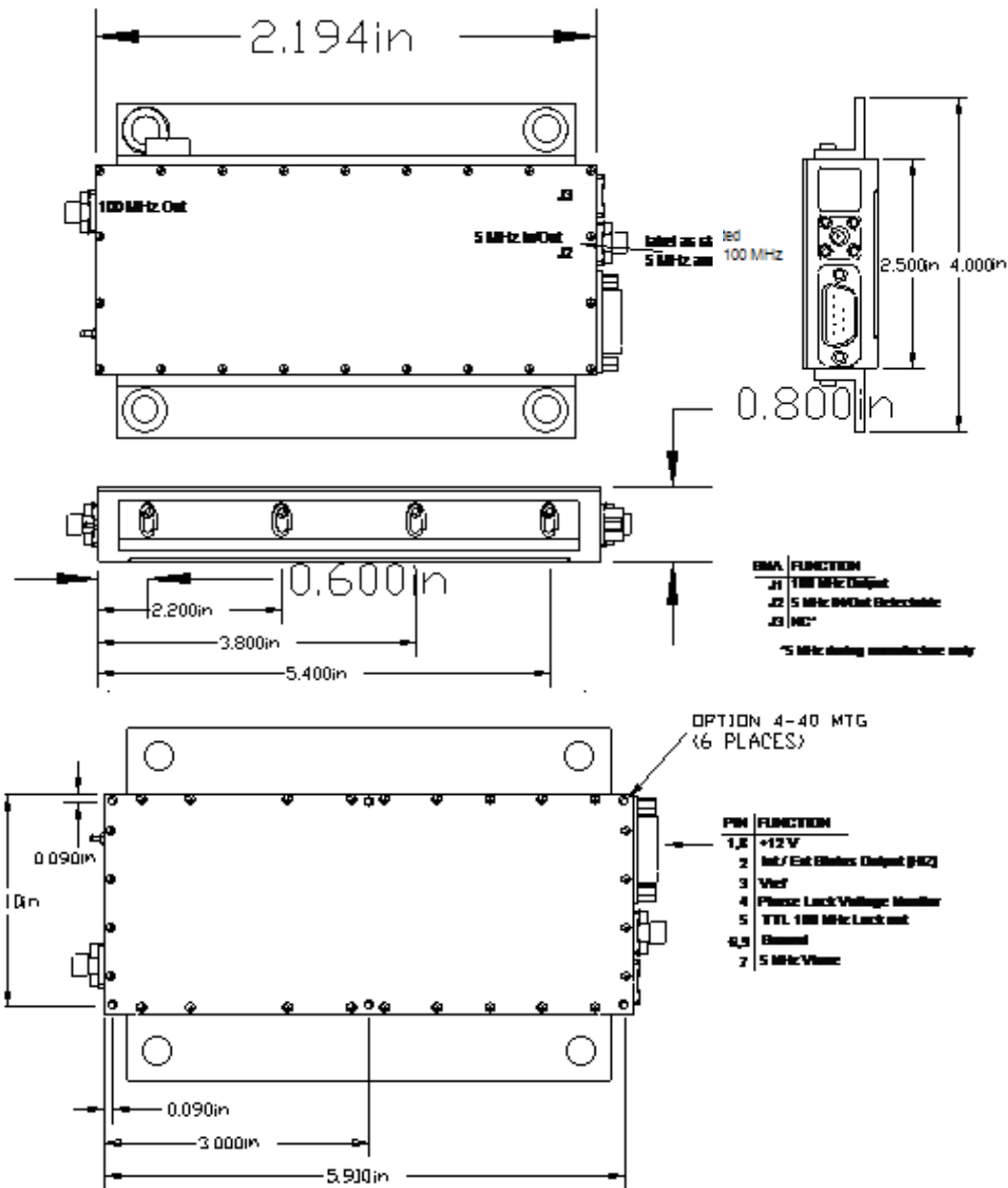
0.XX Dec:  
**±0.030"**

0.XXX Dec:  
**±0.010"**


FSCM:  
**62821**

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Flanges suitable for Barry Ball Mount Isolators

 <b>Wenzel Associates, Inc.</b> Austin, Texas				
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