

**INPUT****Frequency**

10 MHz, +3 to +13 dBm into 50 ohms

**OUTPUT – 10 MHz****Frequency**

10 MHz, +12 dBm ±2 dB

**Phase Noise**

10 Hz -130 dBc/Hz

100 Hz -150 dBc/Hz

1 kHz -160 dBc/Hz

10 kHz -165 dBc/Hz

**Harmonics, Subs, Spurious**

-25, -85, -85 dBc

**OUTPUT – 100 MHz****Frequency**

100 MHz, +12dBm ±2 dB

**Output Phase Noise L(f)****Locked to Internal 10 MHz**

10 Hz -100 dBc/Hz

100 Hz -118 dBc/Hz

1 kHz -150 dBc/Hz

10 kHz -165 dBc/Hz

**Harmonics, Subs, Spurious**

-25, -85, -85 dBc to 600 MHz

**Loop BW**Target Bandwidth: 40 Hz, typical,  
type 2 Loop**STABILITY****Aging**±5 x 10<sup>-10</sup> per day, typical**Temperature Stability**±1 x 10<sup>-8</sup>, 0 to +50°C, (Ref. +25°C)**Phase Lock Alarm - TTL**

Locked: +3.5 to +5.2 VDC (Hi)

Unlocked: +0.8 VDC max (Lo)

**Phase Lock Voltage Monitor**Voltage monitor pin supplied,  
0 to +8.5 VDC range**MECHANICAL****Dimensions**

2.5 x 6.0 x 0.9"

**Connectors**

SMA's

7 Pin D-subminiature, male

**Packaging**

Nickel plated machined brass housing

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

+12 ±0.5VDC

**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**

±1 ppm, 0 to +10 VDC

Centered at +5 VDC

Negative Slope

Suitable for use with a 100 k ohm pot

**NOTE**When the external 10 MHz reference is  
applied the internal 10 MHz is disabled and  
the external 10 MHz signal is phase locked to  
the 100 MHz internal OCXO. The external 10  
MHz is also routed through the 10 MHz  
output port.**SPECIAL****Reference Select Switch – Internal****10 MHz By Pass**>+4.0 Volts enables external reference,  
bypassing internal 10 MHz

&lt;+1.0 Volts disables external

REV	DATE	REVISION RECORD	DWN	AUTH
-	01-17-08	Draft	VG	DC
A	03-05-13	PL Voltage Monitor, ET typo	BH	CR

**Wenzel Associates, Inc.**

Austin, Texas

Title:

**10 and 100 MHz Phase Locked Oscillator**

P/N:

**501-18670**

Rev:

**A**

Date:

**03-05-13**

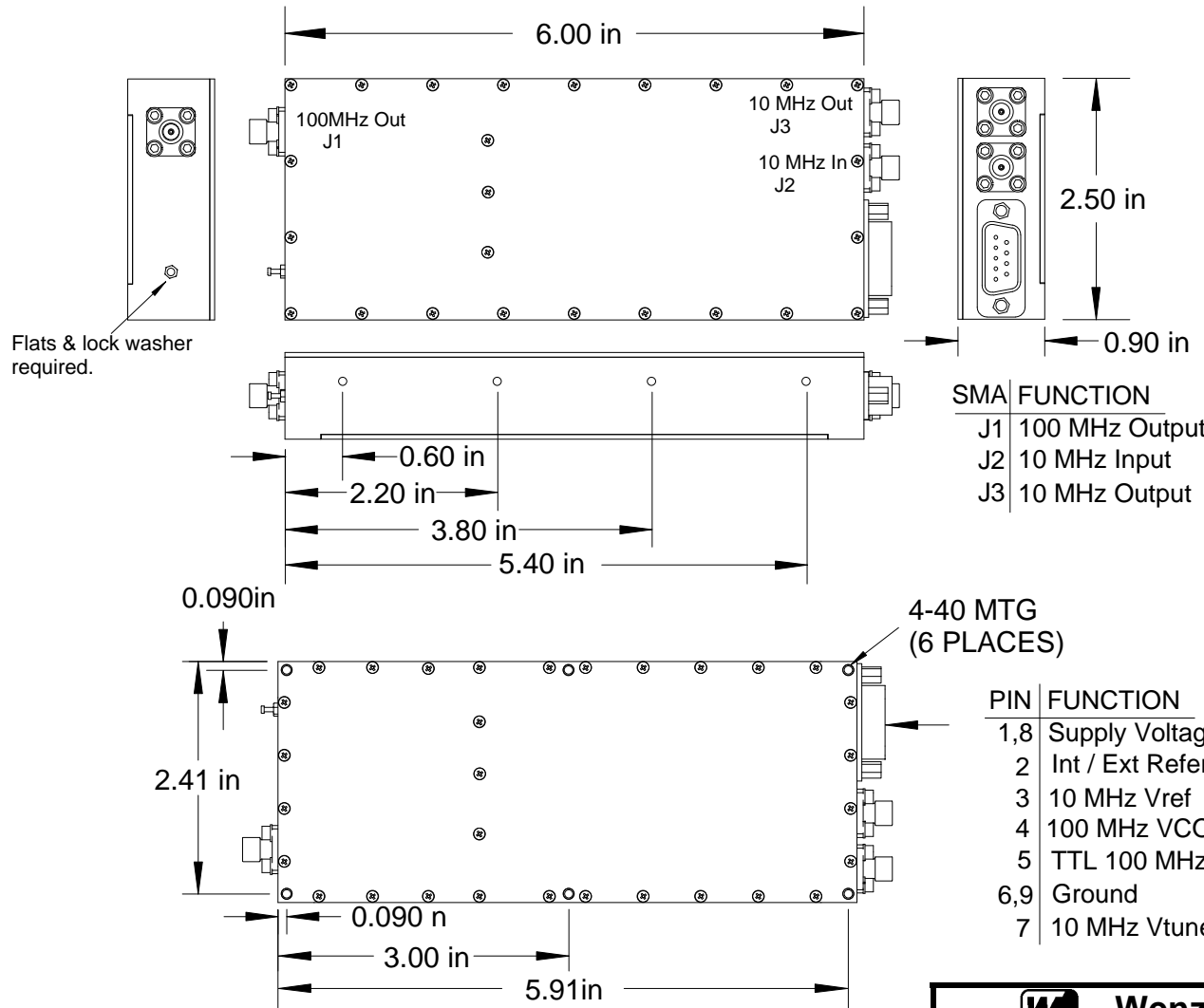
Drawn:

Ref:

Tolerances:  
(except as noted)  
Dimensions are in inches0.XX Dec:  
**±0.030"**0.XXX Dec:  
**±0.010"**FSCM:  
**62821**

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SMA	FUNCTION
J1	100 MHz Output
J2	10 MHz Input
J3	10 MHz Output

PIN	FUNCTION
1,8	Supply Voltage
2	Int / Ext Reference Select
3	10 MHz Vref
4	100 MHz VCO tune voltage
5	TTL 100 MHz Lock out
6,9	Ground
7	10 MHz Vtune

**WA** **Wenzel Associates, Inc.**  
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