

**INPUT - Selectable****Frequency**

5 MHz, -2 to +17dBm into 50 ohms

**OUTPUT – 5 MHz****Frequency**

5 MHz, +10dBm ±2 dB

**Phase Noise**

1 Hz -110 dBc/Hz

10 Hz -140 dBc/Hz

100 Hz -155 dBc/Hz

1 kHz -160 dBc/Hz

10 kHz -160 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 5 MHz**

10 Hz -103 dBc/Hz

100 Hz -118 dBc/Hz

1 kHz -140 dBc/Hz

10 kHz -160 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 after 30 days  
operating typical**Temperature Stability**±1 x 10<sup>-8</sup> without external input  
-10 to +65 °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 +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"

**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**

+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**

+8 VDC, typical, buffered by 10 k ohms

**Internal 100 MHz Tuning**

8 to 11 ppm, 0 to +7.5 VDC

**SPECIAL****Reference Select Switch – Internal 5 MHz****By Pass**>+4.0 Volts enables external reference,  
bypassing internal 5 MHz

&lt;+1.0 Volts disables external

REV	DATE	REVISION RECORD	DWN	AUTH
-	06-23-04	Draft	BH	Liz
A	03-27-09	Aging, Test Data	BH	

**Wenzel Associates, Inc.**

Austin, Texas

Title:

**Standard 5 and 100 MHz Phase Locked Oscillator**

P/N:

**501-12916**

Rev:

**A**

Date:

**03-27-09**

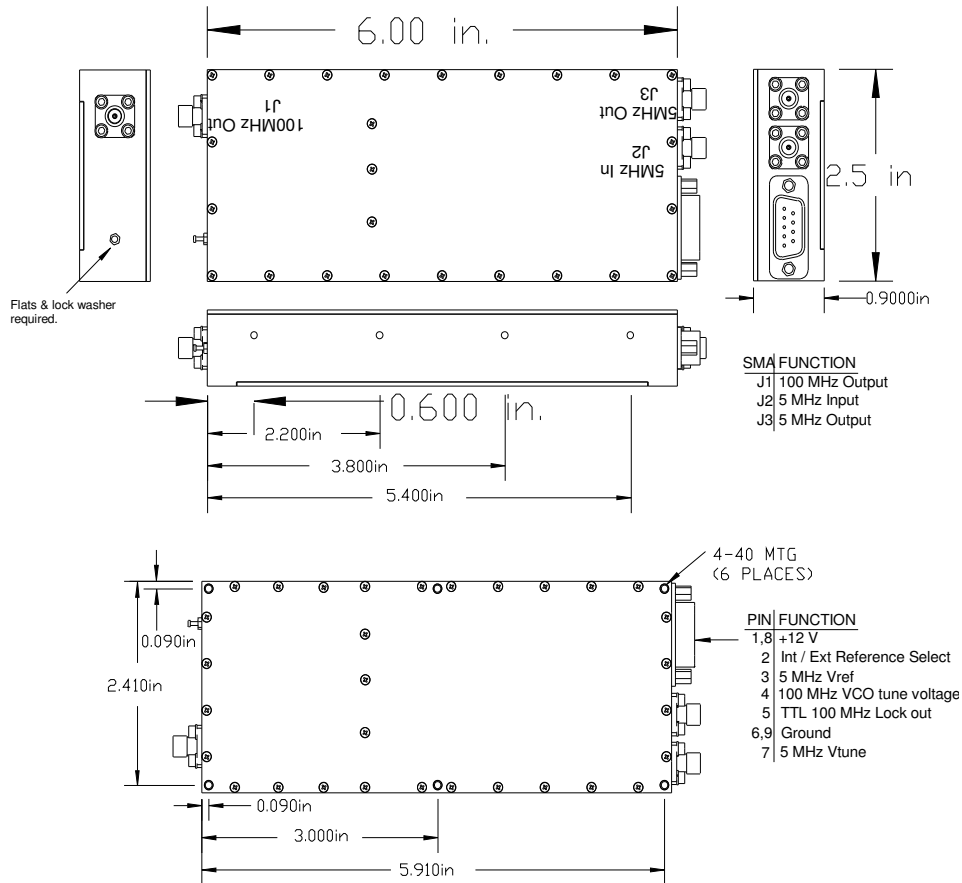
Drawn:

Ref:

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

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