

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 \pm 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 \pm 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
 \geq 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**

\pm 3 x 10⁻¹⁰ per day at time of shipment
 \pm 3 x 10⁻⁸ per year

Temperature Stability

\pm 1 x 10⁻⁸ without external input
 -10 to +70°C, (Ref. +25°C)

Stability vs. Supply V

\pm 1 x 10⁻⁹ / %

Phase Lock Voltage Monitor

Voltage monitor pin supplied, 0 to +7.5 VDC range

Warm-Up

7 minutes to 1 x 10⁻⁷ 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 \pm 0.2 lbs

Packaging

Nickel plated machined brass housing

POWER REQUIREMENTS**Supply Voltage**

+12 \pm .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**

\pm 0.3 to \pm 0.6 ppm, 0 to +7 VDC
 \pm 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.

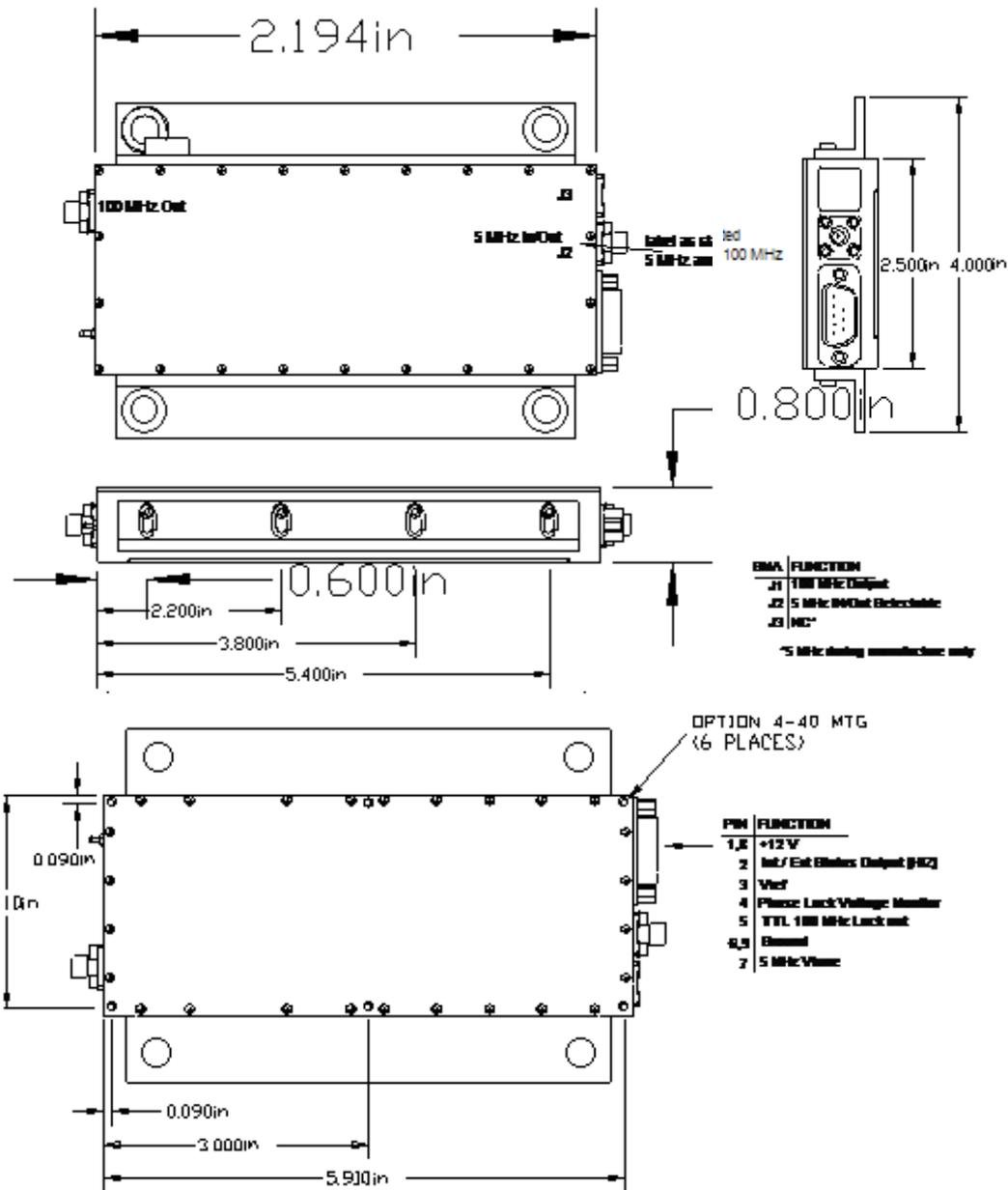
Austin, Texas

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: \pm0.030"	0.XXX Dec: \pm0.010"	FSCM: 62821	Page 1 of 2

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Flanges suitable for Barry Ball Mount Isolators

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