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

$\pm 5 \times 10^{-10}$ per day after 30 days operating typical

Temperature Stability

$\pm 1 \times 10^{-8}$ 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 1×10^{-7} 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 +25º C

Total Power

6 Watts, typical, steady state +25ºC

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

<+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:	Rev:	Date:	Drawn:	Ref:
501-12916	A	03-27-09		

Tolerances: (except as noted) Dimensions are in inches	0.XX Dec:	0.XXX Dec:	FSCM:	Page 1 of 2
	±0.030”	±0.010”	62821	

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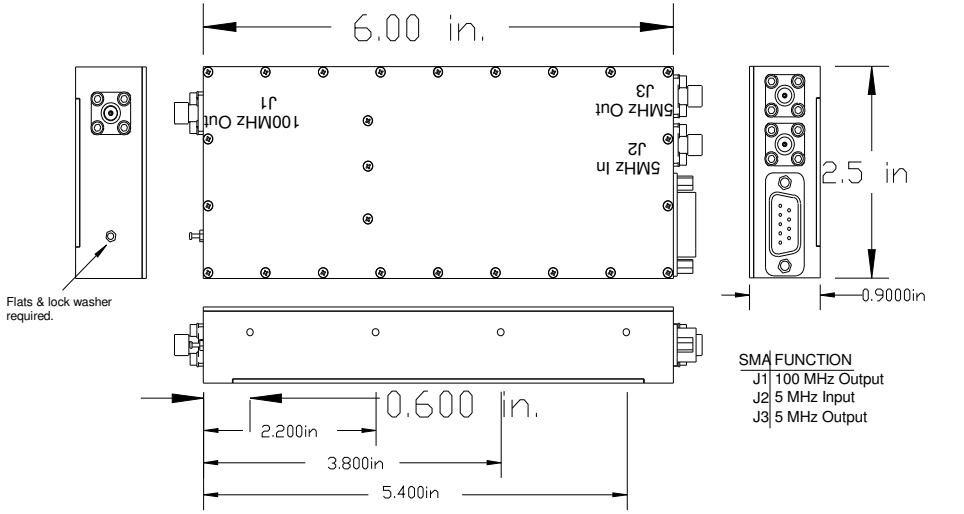
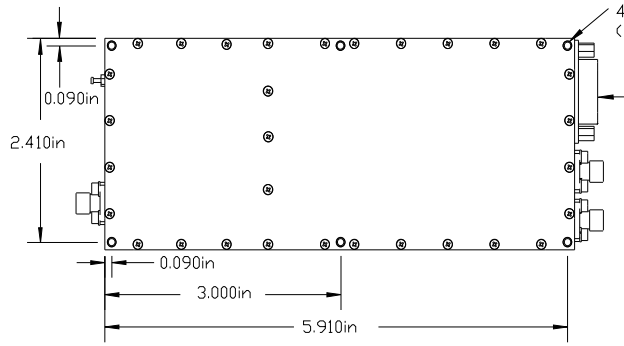


SMA	FUNCTION
J1	100 MHz Output
J2	5 MHz Input
J3	5 MHz Output



PIN	FUNCTION
1,8	+12 V
2	Int / Ext Reference Select
3	5 MHz Vref
4	100 MHz VCO tune voltage
5	TTL 100 MHz Lock out
6,9	Ground
7	5 MHz Vtune

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