

OUTPUT**Frequency**

10 MHz

Level

+4 dBm ±3 dB into 50 ohms

EXTERNAL REFERENCE INPUT**Frequency**

5 or 10 MHz, ±3 Hz

selectable

Level

+4 dBm ±3dB into 50 ohms

VSWR

1.5:1 max

Phase Noise L(f), typical at 10 MHz

1 Hz -85 dBc

10 Hz -117 dBc

100 Hz -132 dBc

1 KHz -142 dBc

10 KHz -147 dBc

OUTPUT STABILITY**Aging**1 x 10⁻⁹ /day after 24 hours

operating preceeded by 3 days of operation.

Disciplined.

Phase Noise L(f)

1 Hz -100 dBc

10 Hz -130 dBc

100 Hz -155 dBc

1 KHz -163 dBc

Temperature Stability±5 x10⁻⁹, 0° to +65°C total change**Type 2, 3rd order PLL**

BW @ 0.05 Hz, nominal

Input Output PLL Rejection

1 Hz 15 dB Min.

10 Hz 35 dB Min

100 Hz 55 dB Min

MECHANICAL**Dimensions**

2.26" x 2.26" x 0.61" max

Connectors

SMA Output, SMA Input

S4B-PH-K-S-(LF)(SN) Control/Status

S6B-PH-K-S-(LF)(SN) Programming

Packaging

Nickel plated aluminum housing

POWER REQUIREMENTS**Warm-Up Power**

7.5 Watts for 5 minutes

Total Power

3.5 Watts at +25°C

Supply Voltage

+12 VDC +-5%

CRYSTAL**Type**

10 MHz SC-cut, ≥90°C

STATUS**Pin – Locked status**

TTL, High = locked

TTL, Low = Not locked

OTHER**Test Data**

Output Level, Phase Noise free-running and with external input.

Smooth transition verification.

Frequency Calibration

Manual Calibration enable: TTL-Low 0V

Calibration not enabled: TTL-High +5V

Slow Transition

Smooth frequency transitions on the loss and acquisition of reference input

Disciplined

Will manually learn reference frequency with Cal Pin (See operation notes)

Begins initial aging correction after being locked for 14 days

REV	DATE	REVISION RECORD	DWN	AUTH
-	06-07-16	Initial Release	Liz	

Wenzel Associates, Inc.

Austin, Texas

Title:

**10 MHz-SC Digital Phase Locked Oscillator
with Smooth Frequency Transitions (RoHS)**

P/N:

501-30108

Rev:

-

Date:

06-07-16

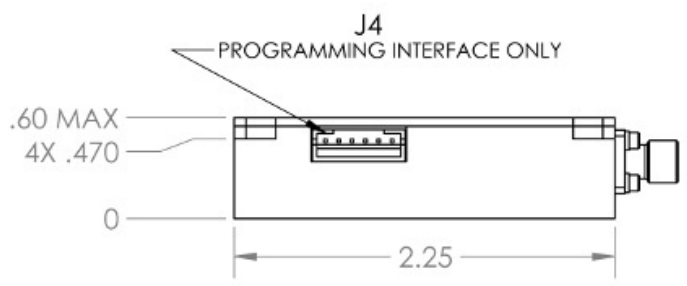
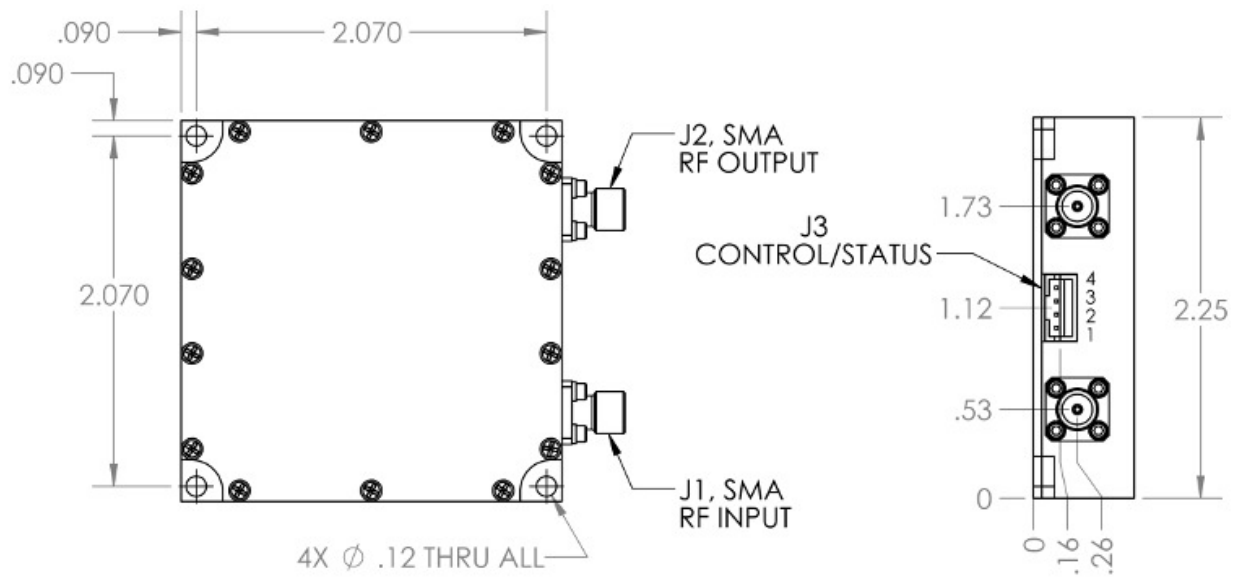
Drawn:

Ref:

500-25237e

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

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Connection	Function
J1	RF INPUT
J2	RF OUTPUT
J3-1	GROUND
J3-2	CAL ENABLE
J3-3	STATUS
J3-4	SUPPLY VOLTAGE
J4	PROGRAM N/A

Wenzel Associates, Inc.
Austin, Texas

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