

## INPUT

### Frequency

10 MHz,  $\pm 5 \times 10^{-7}$

### Level

+7 dBm  $\pm 5$  dB into 50 ohms

## OUTPUT

### Frequency

100 MHz

### Level

+13 dBm  $\pm 2$  dB into 50 ohms

## STABILITY

### Aging

$1 \times 10^{-6}$  first year

after 30 days operating, typical

$5 \times 10^{-7}$  second year, typical

$3 \times 10^{-7}$  per year thereafter, typical

### Phase Noise L(f), static, free-running

100 Hz -130 dBc/Hz

1 kHz -158 dBc/Hz

10 kHz -175 dBc/Hz

100 kHz -176 dBc/Hz

### Temperature Stability

$\pm 5 \times 10^{-7}$  free-running from 0 to +50°C,  
(Ref. +25°C)

## Harmonics

-30 dBc

## Sub-Harmonics

-80 dBc

## PLL Divider Products

-80 dBc

## Non-Harmonic Spurious

-80 dBc, excluding power  
supply line related spurs

## Phase Lock Alarm

TTL

Locked: +3.5 VDC to +5.2 VDC (Hi)

Out-of-Lock: +0.8 VDC max (Lo)

## Phase Lock Voltage Monitor

Voltage monitor pin supplied

## MECHANICAL

### Dimensions

2 x 2 x 1.3"

### Connectors

SMA(f) and solder pins on side

## Packaging

Nickel-plated machined  
aluminum case - CVPLO

## POWER REQUIREMENTS

### Warm-Up Power

$\leq 8$  Watts for 5 minutes

### Total Power

$\leq 5$  Watts at +25°C

### Supply Voltage

+12 VDC  $\pm 5\%$

## ADJUSTMENT

### Loop BW

Target Bandwidth:  $\leq 10$  Hz

Type 2 Loop

## CRYSTAL

### Type

100 MHz SC-cut (low-g)

### Acceleration Sensitivity

$\leq 3 \times 10^{-10}$ /g per axis, typical

## ENVIRONMENTAL

### Operating Temperature

0° to +50°C

### Storage Temperature

-40° to +85°C

## OTHER

### Label

Use conventional label with the  
following information:

501-28386 (Current Rev.)

100 MHz PL Citrine

+12 VDC

Serial # - Date Code

## Test Data

Output Level

Phase Noise, Static, Free-Running

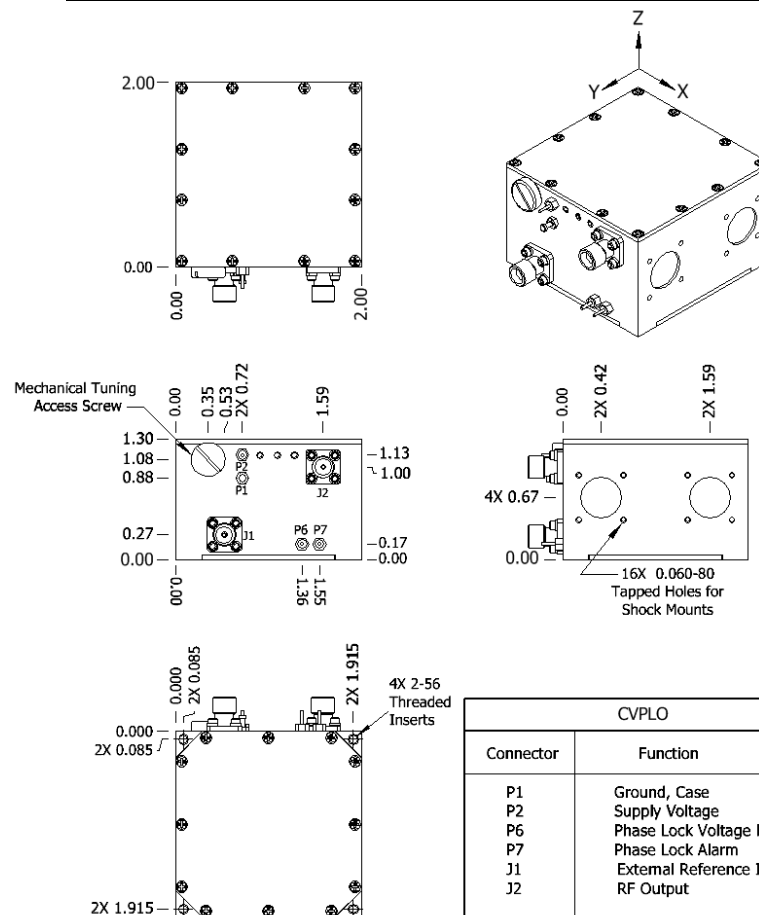
Temperature Stability, Free-Running

Harmonics, Subs, Products, Spurious

Power – Warm-up and Total

Acceleration Sensitivity

REV	DATE	REVISION RECORD	DWN	AUTH
-	09-03-14	Initial Release	Liz	



CVPLO	
Connector	Function
P1	Ground, Case
P2	Supply Voltage
P6	Phase Lock Voltage Monitor
P7	Phase Lock Alarm
J1	External Reference Input
J2	RF Output

Connector numbers are for reference  
only and will not be marked on unit.

## Wenzel Associates, Inc.

Austin, Texas

Title:

### Premium 100 MHz-SC Phase Lock Citrine Crystal Oscillator (+12V)

P/N: <b>501-28386</b>	Rev: <b>-</b>	Date: <b>09-03-14</b>	Drawn:	Ref: ULN
Tolerances: (except as noted) Dimensions are in inches	0.XX Dec: <b><math>\pm 0.030</math>"</b>	0.XXX Dec: <b><math>\pm 0.010</math>"</b>	FSCM: <b>62821</b>	Page 1 of 1