

INPUT

Frequency

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

Level

+7 dBm ± 6 dB into 50 ohms

OUTPUT

Frequency

70 MHz

Level

+16 dBm ± 2 dB into 50 ohms

STABILITY

Aging

1×10^{-6} first year

after 30 days operating, typical

5×10^{-7} second year, typical

3×10^{-7} per year thereafter, typical

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

100 Hz -134 dBc/Hz

1 kHz -159 dBc/Hz

10 kHz -180 dBc/Hz

100 kHz -182 dBc/Hz

Phase Noise L(f), Dynamic, typical

10 Hz -75 dBc/Hz

100 Hz -109 dBc/Hz

1 kHz -151 dBc/Hz

2 kHz -163 dBc/Hz

Temperature Stability (free-running)

$\pm 5 \times 10^{-7}$ from 0 to +40°C, (Ref. +25°C)

Harmonics

-30 dBc

Sub-Harmonics

-80 dBc

PLL Divider Products

-95 dBc

Non-Harmonic Spurious

-90 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

2.8" x 3.0" x 1.75"

Connectors

SMA(f) and solder pins on side

Packaging

Nickel-plated machined
aluminum case – CVPLOI

POWER REQUIREMENTS

Warm-Up Power

≤ 10 Watts for 5 minutes

Total Power

≤ 6 Watts at +25°C

Supply Voltage

+15 VDC $\pm 5\%$

ADJUSTMENT

Loop BW

Target Bandwidth: ≤ 10 Hz

Type 2 Loop

CRYSTAL

Type

70 MHz SC-cut (low-g)

Acceleration Sensitivity

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

ENVIRONMENTAL

Operating Temperature

0° to +40°C

Storage Temperature

-40° to +85°C

Vibration Level

10 Hz to 2 kHz $0.01 \text{ g}^2/\text{Hz}$

Resonance

(Internal Mount Natural Frequency)

~ 30 Hz, typical

OTHER

Label

Use conventional label with the
following information:

501-29562 (Current Rev.)

70 MHz Citrine PLO

+15 VDC

Serial # - Date Code

Test Data

Output Level

Phase Noise, Static, Free-Running

Temperature Stability, Free-Running

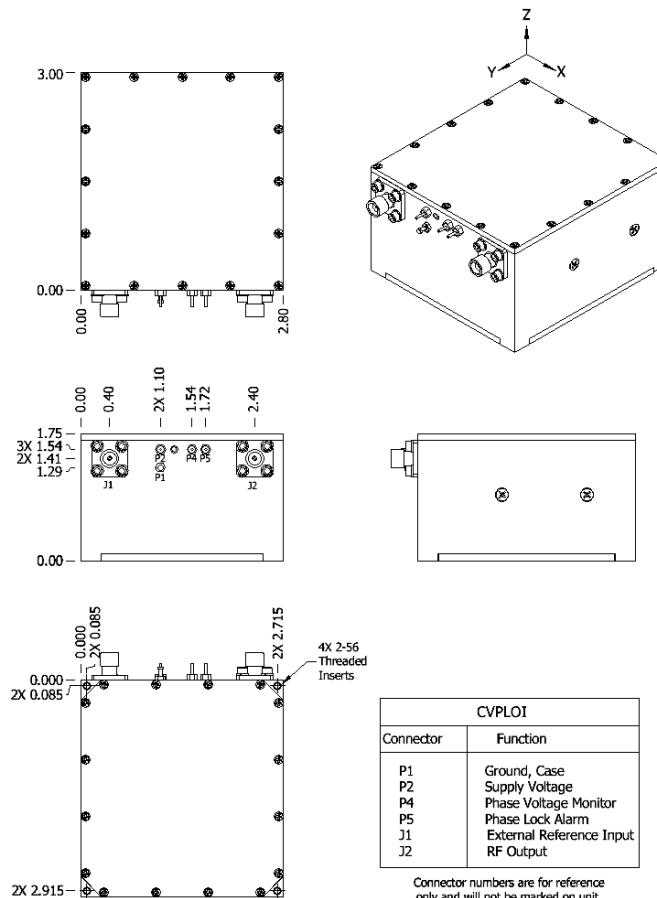
Harmonics, Subs, Products, Spurious

Power – Warm-up and Total

Acceleration Sensitivity

Mount Natural Frequency Resonance

REV	DATE	REVISION RECORD	DWN	AUTH
-	11-16-15	Initial Release	CB	
A	09-28-16	Changed Temp from +50C to +40C	CB	



Wenzel Associates, Inc.

Austin, Texas

Title:

**70 MHz-SC Phase Lock Golden Citrine Vibration Isolated
Crystal Oscillator**

P/N:

501-29562

Rev:

A

Date:

09-28-16

Drawn:

Ref:

ULN

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:
 ± 0.030 "

0.XXX Dec:
 ± 0.010 "

FSCM:
62821

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