

## OUTPUT

### Frequency

10 MHz, dual output

### Level

+13 dBm  $\pm 2$  dB into 50 ohms,  
each output

## STABILITY

### Aging

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

### Phase Noise L(f), Static

10 Hz -140 dBc/Hz  
100 Hz -160 dBc/Hz  
1 kHz -172 dBc/Hz  
10 kHz -172 dBc/Hz

### Temperature Stability

$\pm 2 \times 10^{-8}$ , 0° to +50°C (Ref +25°C)

### Harmonics

$\leq -30$  dBc

### Spurious

$\leq -90$  dBc, excluding power  
supply line related spurs

## MECHANICAL

### Dimensions

2.25 x 2.25 x 0.8"

### Connectors

SMA(f) and solder pins on side

### Packaging

Nickel-plated machined  
aluminum case

## POWER REQUIREMENTS

### Warm-Up Power

$\leq 7.5$  Watts for 5 minutes

### Total Power

$\leq 5$  Watts at +25°C

### Supply Voltage

+12 VDC  $\pm 5\%$

## ADJUSTMENT

### Mechanical Tuning

$\pm 1 \times 10^{-6}$

### Electrical Tuning

$\pm 2 \times 10^{-7}$ ,  $\pm 5$  VDC  
Negative slope

## CRYSTAL

### Type

10 MHz SC-cut

## SPECIAL

### Acceleration Sensitivity

$\leq 5 \times 10^{-10}$  /g per axis, typical

## OTHER

### Label

Use conventional label with the  
following information:

501-24221 (Current Rev.)

10 MHz Citrine ULN

+12 VDC

Serial # - Date Code

### Test Data

Output Level

Phase Noise, Static

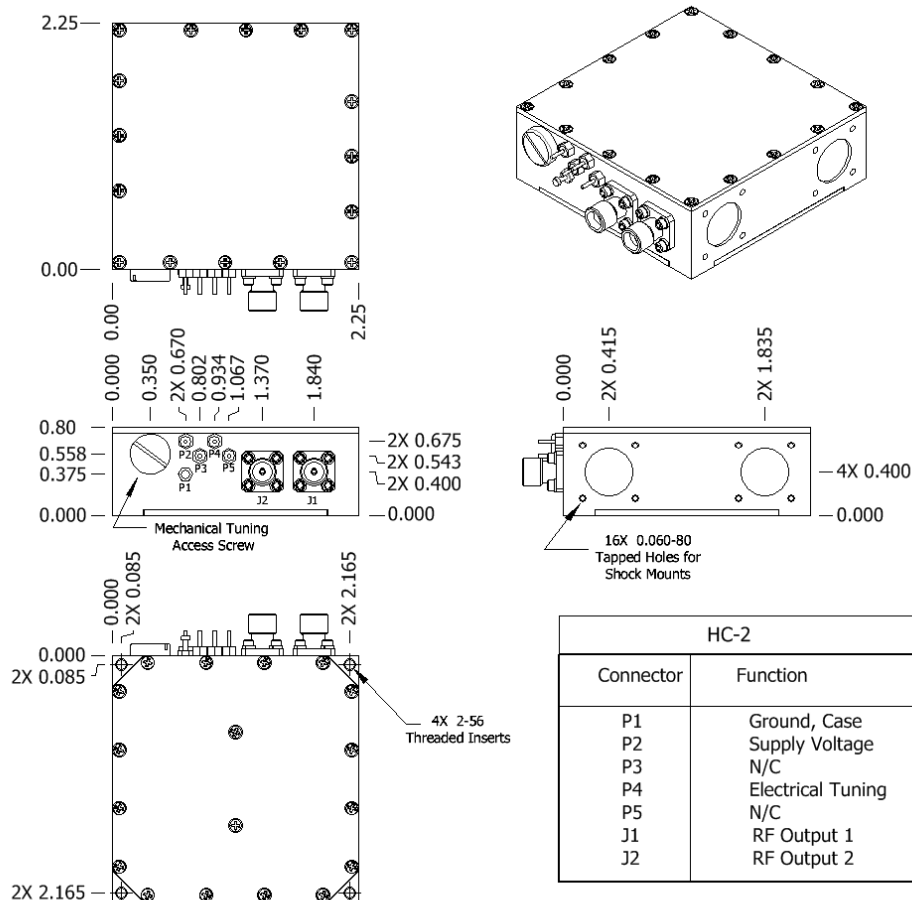
Temperature Stability

Harmonics, Spurious

Power – Warm-up and Total

Tuning – MT and ET

REV	DATE	REVISION RECORD	DWN	AUTH
-	07-08-11	Initial Release	PAC	
A	03-24-16	Close in noise, crystal type	BH	BB
B	06-03-16	Power	BH	MG



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

## Wenzel Associates, Inc.

Austin, Texas

Title:

**10 MHz-SC Citrine Dual Output ULN Crystal Oscillator**

P/N:

**501-24221**

Rev:

**B**

Date:

**06-03-16**

Drawn:

Ref:

ULN

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:  
 **$\pm 0.030$ "**

0.XXX Dec:  
 **$\pm 0.010$ "**

FSCM:  
**62821**

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