

**OUTPUT****Frequency**

100 MHz

**Level**+10 dBm  $\pm 2$  dB into 50  $\pm 5$  ohms**STABILITY****Frequency Accuracy**To within  $\pm 1 \times 10^{-6}$  at time of shipment at +25 °C**Aging**1  $\times 10^{-6}$  per year  
after 30 days operating, typical**Phase Noise L(f), Static**

100 Hz -130 dBc/Hz

1 kHz -158 dBc/Hz

10 kHz -172 dBc/Hz

100 kHz -174 dBc/Hz

**Temperature Stability** $\pm 1 \times 10^{-6}$ , -40 ° to +70 °C (Ref +25 °C) $\pm 2 \times 10^{-6}$ , +70 ° to +85 °C (Ref +25 °C)**Harmonics**

-20 dBc

**Non-Harmonic Spurious**-80 dBc, excluding power  
supply line related spurs**MECHANICAL****Dimensions**

2.61 x 2.40 x 0.85"

(See drawing Page 2)

**Connectors**

SMA(f) and solder pins on side

**Packaging**Nickel-plated machined  
aluminum case**Weight, typical**

0.2 lbs

**Mounting**

Tabs on three corners

**POWER REQUIREMENTS****Warm-Up Power** $\leq 3$  Watts for 2 minutes at -40 °C**Total Power** $\leq 1.8$  Watts at -40 °C**Supply Voltage**+12 VDC  $\pm 5\%$ **ADJUSTMENT****Electrical Tuning** $\pm 4 \times 10^{-6}$ , 0 to +10 VDC

Negative slope

**Oven Monitor**

TTL High (3.5 to 5.2 VDC) when oven

temp is  $> 0$  °C, typical;

TTL Low (0 to 0.8 VDC) when oven

temp is  $< 0$  °C, typical**CRYSTAL****Type**

100 MHz, low-g, 2e-10/g per axis

**ENVIRONMENTAL****Temperature**

Operating: -40 ° to +85 °C

Non-Operating: -50 ° to +90 °C

**Vibration Isolation**

Internal shock-mounts

40 Hz Resonance, typical

**Vibration Test Profile**30 Hz 0.02 g<sup>2</sup>/Hz150 Hz 0.02 g<sup>2</sup>/Hz151 Hz 0.05 g<sup>2</sup>/Hz400 Hz 0.05 g<sup>2</sup>/Hz401 Hz 0.02 g<sup>2</sup>/Hz1000 Hz 0.02 g<sup>2</sup>/Hz1001 Hz 0.0005 g<sup>2</sup>/Hz2000 Hz 0.0005 g<sup>2</sup>/Hz**Shock – Operating**Designed to operate during 10g, 11 ms  
sawtooth pulse each axis, with degraded  
performance.**Shock – Non-Operating**Designed to survive 20g, 11 ms sawtooth  
pulse each axis**OTHER****Test Data**

Output Level

Frequency Accuracy (at time of shipment)

Phase Noise – Static and Dynamic (3  
axes)

Temperature Stability

Harmonics, Spurious

Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	07-02-15	Initial Release	Liz	GP

**Wenzel Associates, Inc.**

Austin, Texas

Title:

**100 MHz-SC Vibration Isolated Crystal Oscillator**

P/N:

**501-29204**

Rev:

**-**

Date:

**07-02-15**

Drawn:

Ref:

23939b

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:

 **$\pm 0.030$ "**

0.XXX Dec:

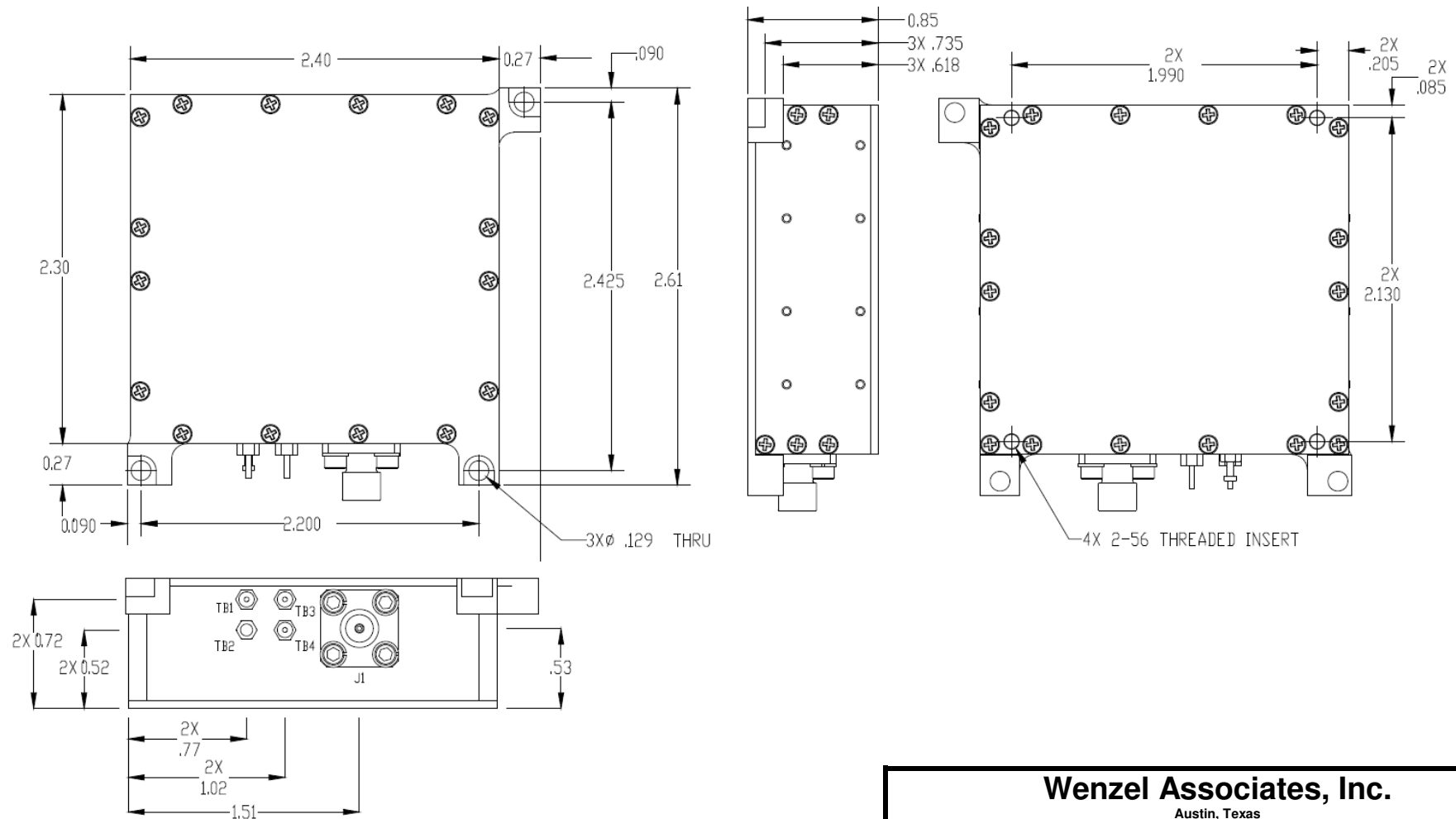
 **$\pm 0.010$ "**

FSCM:

**62821**

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