EV	DATE	REVISION RECORD	DWN	AUTH
-	10-10-12	Initial Release	Liz	
A	05-29-15	Improved Close In Phase noise	CB	
B	05-10-16	Noise	Liz	
C	03-12-19	100k, 1M noise	Liz	

OUTPUT

Frequency

160 MHz

Level

+13 dBm ±2 dB into 50 ohms

STABILITY

Aging

1×10^{-6} per year

after 30 days operating, typical

Phase Noise L(f)

100 Hz	-120 dBc/Hz
1 kHz	-148 dBc/Hz
10 kHz	-170 dBc/Hz
100 kHz	-172 dBc/Hz
1 MHz	-176 dBc/Hz

Temperature Stability

$\pm 2 \times 10^{-7}$, 0° to +50°C (Ref +25°C)

Harmonics

≤ -30 dBc

Spurious

≤ -90 dBc, excluding power supply line related spurs

MECHANICAL

Dimensions

1.835 x 1.865 x 0.75”

Connectors

SMA(f) and solder pins on side

Packaging

Nickel-plated machined aluminum case

POWER REQUIREMENTS

Warm-Up Power

≤ 5 Watts for 5 minutes

Total Power

≤ 2.7 Watts at +25°C

Supply Voltage

+15 VDC ±5%

ADJUSTMENT

Mechanical Tuning

$\pm 4 \times 10^{-6}$

Electrical Tuning

$\pm 2 \times 10^{-7}$, ±5 VDC

Negative slope

CRYSTAL

Type

160 MHz SC-Cut

ENVIRONMENTAL

Operating Temperature

0° to +50°C

Storage Temperature

-40° to +85°C

OTHER

Label

Use conventional label with the following information:

501-26351 (Current Rev)

160 MHz ULN

+15 VDC

Serial # - Date Code

Test Data

Output Level

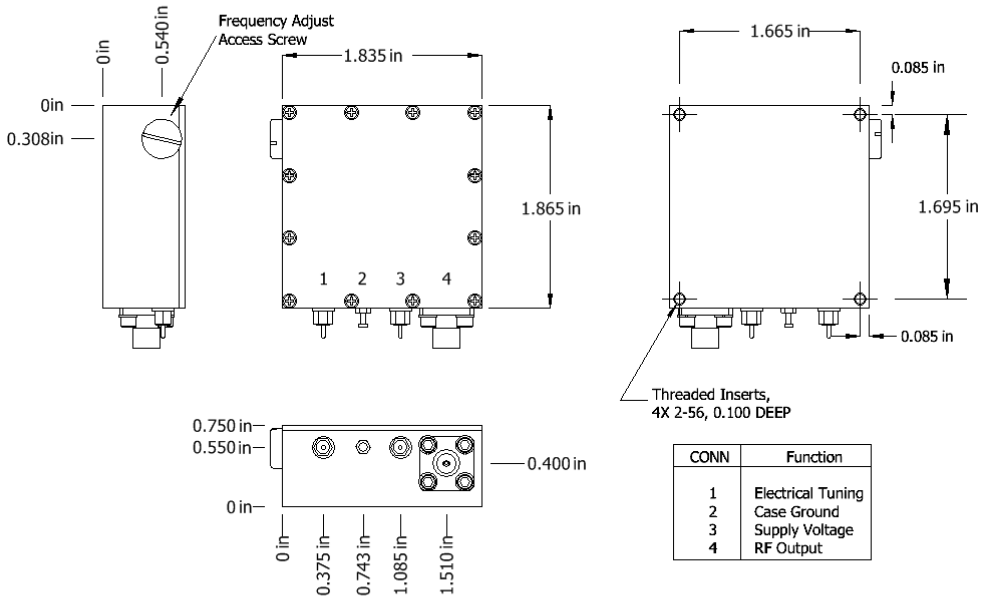
Phase Noise, Static

Temperature Stability

Harmonics, Spurious

Power – Warm-up and Total

Tuning – MT and ET



CONN	Function
1	Electrical Tuning
2	Case Ground
3	Supply Voltage
4	RF Output

Wenzel Associates, Inc.
Austin, Texas

Title:

160 MHz-SC Ultra Low Noise Crystal Oscillator

P/N:	Rev:	Date:	Drawn:	Ref:
501-26351	**C**	**03-12-19**		23145

Tolerances: (except as noted) Dimensions are in inches	0.XX Dec:	0.XXX Dec:	FSCM:	Page 1 of 1
	±0.030”	±0.010”	62821	