

**OUTPUT****Frequency**

100 MHz

**Level**

+10 ±2 dBm min. into 50 ohms

**STABILITY****Aging**±1 x 10<sup>-6</sup> per year

after 30 days operating, typical

**Phase Noise L(f), typical, Static**

	Standard	Premium
10 Hz	-100 dBc/Hz	-105 dBc/Hz
100 Hz	-130 dBc/Hz	-135 dBc/Hz
1 kHz	-156 dBc/Hz	-158 dBc/Hz
10 kHz	-173 dBc/Hz	-176 dBc/Hz
100 kHz	-175 dBc/Hz	-180 dBc/Hz

\*typical at 10 Hz

**Temperature Stability****E:** ±2 x 10<sup>-7</sup>, 0° to +50°C (Ref +25°C)**F:** ±5 x 10<sup>-7</sup>, -20° to +70°C (Ref +25°C)**G:** ±1.5 x 10<sup>-6</sup>, -40° to +85°C (Ref +25°C)**Harmonics**

≤ -30 dBc

**Spurious**

≤ -80 dBc

**MECHANICAL****Dimensions**

≤ 1.03" x 1.03" x 0.515", max outline

**Connectors**

Solder pins on base, glass stand-offs

**Packaging**

Solder sealed steel can

**POWER REQUIREMENTS****Warm-Up Power**

&lt; 3W for 2.5 min

**Total Power**

1.1W at +25°C steady state, typical

**Supply Voltage**

+12 VDC, ±1 VDC

**ADJUSTMENT****Electrical Tuning**±7 x 10<sup>-6</sup>, 0 - 10 VDC

Positive slope

**CRYSTAL****Type**

SC-cut, low-g:

**3Typ** 3e-10/g typical**3G** 3e-10/g per axis, guaranteed**2G** 2e-10/g per axis, guaranteed**ENVIRONMENTAL****Temperature-Altitude**

40,000 feet at -40°C operating

**Storage**

-54° to +85°C

**Shock**

12 gs for 11 msec, three axes

Secure when mounting using

MIL-Grade epoxy

**Humidity**

95 to 100 percent relative humidity,

+28° to +85°C

**TEST DATA**

Output Level at +25°C

Static Phase Noise

G-Sensitivity (each axis)

Temperature Stability

Power – Warm-up and Total at +25°C

REV	DATE	REVISION RECORD	DWN	AUTH
-	05-24-18	Initial Release	BH	BB
A	01-31-19	Phase Noise 1 kHz offset	PAC	CR

**Ordering Options**

-xx	G Sensitivity	Phase Noise L(f)	Temp (Ref +25 °C)
01	3Typ	Standard	E
02	3Typ	Standard	F
03	3Typ	Standard	G
11	3Typ	Premium	E
12	3Typ	Premium	F
13	3Typ	Premium	G
41	3G	Standard	E
42	3G	Standard	F
43	3G	Standard	G
51	3G	Premium	E
52	3G	Premium	F
53	3G	Premium	G
81	2G	Standard	E
82	2G	Standard	F
83	2G	Standard	G
91	2G	Premium	E
92	2G	Premium	F
93	2G	Premium	G

**Wenzel Associates, Inc.**

Austin, Texas

Title:

**100 MHz-SC ULN Rugged ONYX IV Crystal Oscillator**

P/N:

**501-31725-XX**

Rev:

**A**

Date:

**01-31-19**

Drawn:

Ref:

**24761/2**Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:

±0.030"

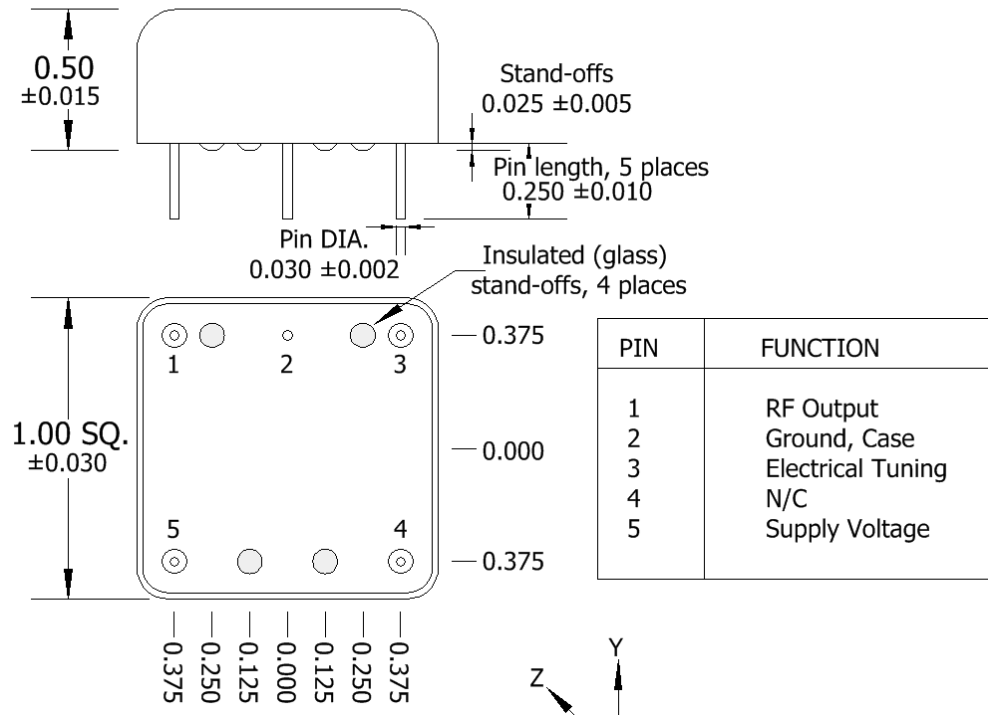
0.XXX Dec:

±0.010"

FSCM:

62821

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PIN	FUNCTION
1	RF Output
2	Ground, Case
3	Electrical Tuning
4	N/C
5	Supply Voltage

Connector numbers are for reference only. They are not marked on the unit.

Title:  
**100 MHz-SC ULN Rugged ONYX IV Crystal Oscillator**

P/N: <b>501-31725-XX</b>	Rev: <b>A</b>	Date: <b>01-31-19</b>	Drawn:	Ref: <b>24761/2</b>
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Tolerances: (except as noted) Dimensions are in inches	0.XX Dec: <b>±0.030"</b>	0.XXX Dec: <b>±0.010"</b>	FSCM: <b>62821</b>	Page <b>2</b> of <b>2</b>
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