

OUTPUT

Frequency

10 MHz

Level

+10 dBm ± 3 dB into 50 ohms

STABILITY

Aging

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

$\pm 5 \times 10^{-8}$ per year after 180 days
operating, typical

Phase Noise L(f)

-01, -02, -03, -04

10 Hz -135 dBc/Hz

100 Hz -158 dBc/Hz

1 kHz -163 dBc/Hz

10 kHz -165 dBc/Hz

100 kHz -165 dBc/Hz

Temperature

$\pm 5 \times 10^{-8}$, -20°C to +70°C (Ref +25°C)

$\pm 2 \times 10^{-7}$, -40°C to +85°C (Ref +25°C)

MECHANICAL

Dimensions

$\leq 1.03" \times 1.03" \times 0.515"$

Connectors

Solder pins on base

Packaging

Solder sealed steel can

POWER REQUIREMENTS

Warm-Up Power

<4W for 3 min

Total Power

<1.5W at +25°C steady state,
typical

Supply Voltage

+12 VDC, $\pm 5\%$

V-Ref Output

+8.9 VDC behind 20k Ohms

ADJUSTMENT

Electrical Tuning

$\pm 1 \times 10^{-6}$, 0 - 10 VDC

Positive slope

CRYSTAL

Type

10 MHz SC-cut

CRYSTAL

Type

SC-cut, low-g:

-01 3e-10/g typical

-02 3e-10/g per axis, guaranteed

-03 2e-10/g per axis, guaranteed

-04 1e-10/g per axis, guaranteed

ENVIRONMENTAL

Temperature-Altitude

40,000 feet at -40°C, operating

Storage

-54° to +85°C

Vibration, typical

10 to 1000 Hz, 0.06 g²/Hz

1000 Hz to 2000 Hz, -6dB/Octave

10 gs RMS

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

Temperature Stability

Power – Warm-up and Total at +25°C

-01 Phase Noise under vibration at

0.06 g²/Hz at 100 Hz, one axis

-02 Phase Noise under vibration data,

0.06 g²/Hz at 100 Hz, three axes

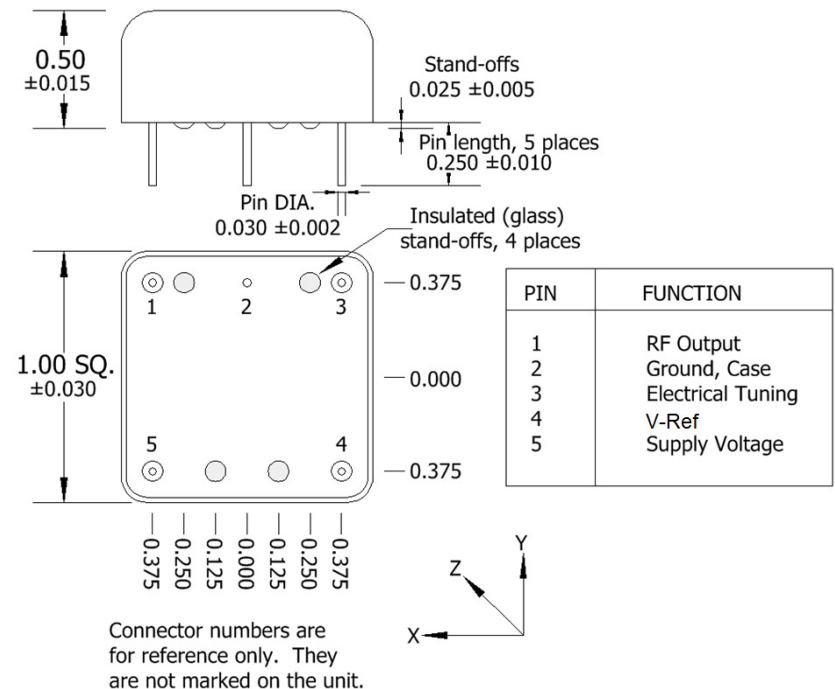
-03 Phase Noise under vibration data,

0.06 g²/Hz at 100 Hz, three axes

-04 Phase Noise under vibration data,

0.06 g²/Hz at 100 Hz, three axes

REV	DATE	REVISION RECORD	DWN	AUTH
-	12-10-15	Draft	Liz	



Wenzel Associates, Inc.

Austin, Texas

Title:

Premium Rugged 10 MHz-SC Onyx IV Oscillator w/V-Ref

P/N:

501-29626-XX

Rev:

-

Date:

12-10-15

Drawn:

Ref:

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:

± 0.030

0.XXX Dec:

± 0.010

FSCM:

62821

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