

OUTPUT

Frequency

100 MHz

Level

+10 ±2 dBm into 50 ohms

STABILITY

Aging

±1 x 10⁻⁶ per year

after 30 days operating, typical

Phase Noise L(f), typical, Static

100 MHz -01 -02 -03 -04

10 Hz -90 -95 -99 -104 dBc/Hz*

100 Hz -120 -125 -130 -135 dBc/Hz

1 kHz -145 -150 -155 -156 dBc/Hz

10 kHz -165 -168 -170 -172 dBc/Hz

100 kHz -165 -168 -171 -172 dBc/Hz

*typical at 10 Hz

Temperature Stability

≤ ±2 x 10⁻⁷, 0° to +50°C (Ref +25°C)

≤ ±5 x 10⁻⁷, -20° to +70°C (Ref +25°C)

≤ ±1.1 x 10⁻⁶, -40° to +85°C (Ref +25°C)

Harmonics

≤ -30 dBc

Spurious, tested, guaranteed

≤ -80 dBc, ≤ -100dBc

MECHANICAL

Dimensions

≤ 1.03" x 1.03" x 0.515"

Connectors

Solder pins on base, glass stand-offs

Packaging

Solder sealed steel can

POWER REQUIREMENTS

Warm-Up Power

≤ 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 10⁻⁶ nominal, 0 - 10 VDC,

Positive slope

CRYSTAL

Type

SC-cut, 5e-10/g typical

TEST DATA

Output Level at +25°C

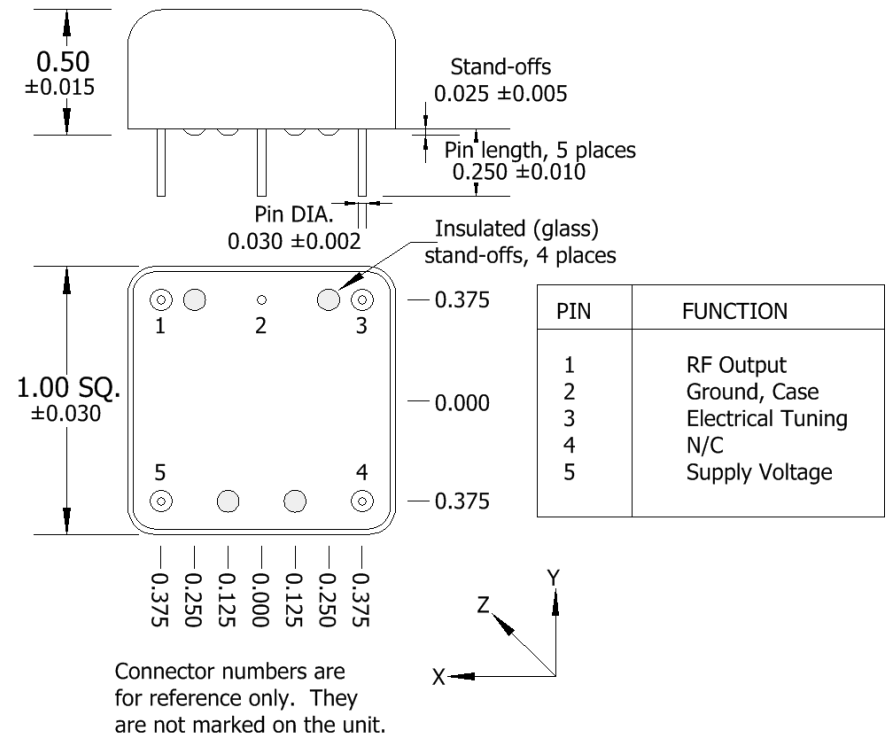
Static Phase Noise

Temperature Stability

Power – Warm-up

Total at +25°C

REV	DATE	REVISION RECORD	DWN	AUTH
-	01-30-12	Draft	Liz	
A	09-06011	Updated drawing	PAC	
B	11-11-11	10 Hz noise, level tolerance, -04, watts	Liz	
C	03-19-12	ET	BH	
D	06-13-12	Spurious	BH	RTK
E	08-29-12	Mechanical Dimensions (Height)	BH	LR
F	05-14-13	Phase Noise	PAC	LR



Wenzel Associates, Inc.

Austin, Texas

Title:

100 MHz-SC ONYX IV Crystal Oscillator

P/N:

501-24760-xx

Rev:

F

Date:

05-14-13

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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