

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

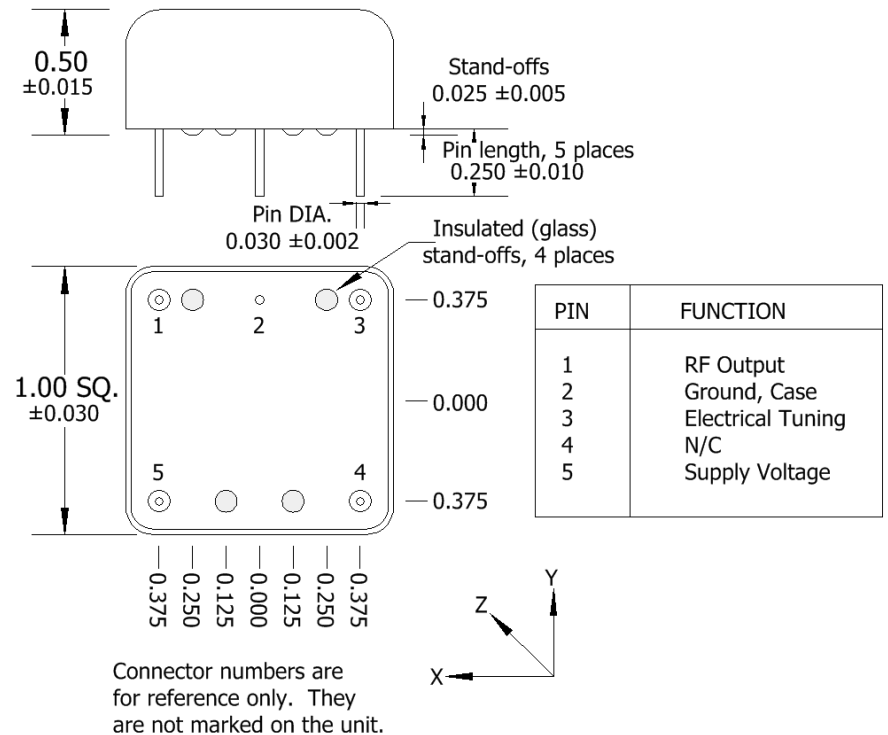
Type

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	Page 1 of 1