REV	DATE	REVISION RECORD	DWN	AUTH
-	10-08-13	Draft	BH	Liz
B	10-16-13	Updated noise, temp, watts	Liz	Liz
C	07-22-15	Phase noise at 10 KHz and 100 KHz	BH	Liz
D	09-28-18	Noise at 10k and 100k, xtal 50M, aging	Liz	BH

OUTPUT

Frequency

50 MHz

Level

+10 ±2 dBm into 50 ohms

STABILITY

Aging

$\pm 1 \times 10^{-6}$ per year

after 30 days operating, typical

$< 0.2 \times 10^{-6}$ per year after 120 days operating, typical

Phase Noise L(f), typical, Static

	-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	-160	-165	-168	-170	dBc/Hz
100 kHz	-165	-165	-170	-170	dBc/Hz

*typical at 10 Hz

Temperature Stability

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

$\leq \pm 5 \times 10^{-7}$, -20° to +70°C (Ref +25°C)

$\leq \pm 1.1 \times 10^{-6}$, -40° to +85°C (Ref +25°C)

Harmonics

≤ -30 dBc

Spurious

≤ -80 dBc

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

1.3 W at +25°C steady state, typical

Supply Voltage

+12 VDC, ±1 VDC

ADJUSTMENT

Electrical Tuning

$\pm 7 \times 10^{-6}$ nominal, 0 - 10 VDC, Positive slope

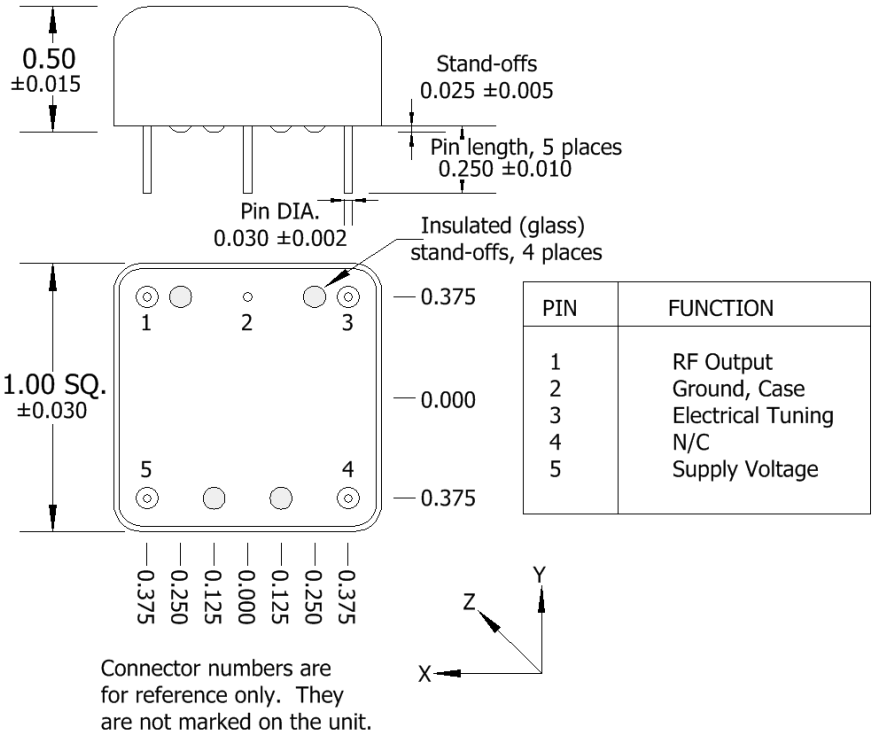
CRYSTAL

Type

50 MHz SC

TEST DATA

Output Level at +25°C
Static Phase Noise
Temperature Stability
Power – Warm-up / Total at +25°C



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

Wenzel Associates, Inc.
Austin, Texas

Title:
50 MHz-SC HS-ONYX IV Crystal Oscillator

P/N:	Rev:	Date:	Drawn:	Ref:
501-27228-xx	**D**	**09-28-18**		**501-24760-xx**

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