ELECTRICAL SPECIFICATIONS[1]

Parameter	Limit (min.)	Limit (max.)	Unit	Condition
Nominal Frequency (Fo)	10.000 000		MHz	
Initial Accuracy at +25°C	-0.1	+0.1	PPM	Unit does not contain a mechanical or electrical frequency control.
Supply Voltage (Oscillator and Oven)	+11.4	+12.6	VDC	+12V nominal
Input Power				
Warm-up (turn-on)	-----	7.0	W	< 10 minutes to current cut-back
Steady State @ -30°C	-----	2.50	W	
Steady State @ +25°C	-----	1.50	W	
Switch-on Temperature	-30	-----	°C	Spec compliant after 15 minutes
RF Output Power	+6.0	+8.0	dBm	50 ohm load
Harmonics	-----	-25	dBc	
Spurious	-----	-90	dBc	1 kHz to 1 MHz

FREQUENCY STABILITY[1]

Parameter	Limit (max.)	Unit	Condition
Frequency vs. Temperature	±2.0e-8	ΔF/F	-30°C to +70°C under vacuum
Frequency vs. Voltage	±1.0e-9	ΔF/F	For a 5% change in supply voltage
Frequency Retrace @ +25°C (24 hours off)[3]	±1.0e-8	ΔF/F	One hour after turn-on
Frequency vs. Pressure[3]	±2.0e-8	ΔF/F	1 ATM to 10-5 TORR
Aging			
Daily	±3.0e-10	ΔF/F	At time of shipment
Yearly	±1.0e-7	ΔF/F	Log fit IAW MIL-PRF-55310, Log projection
Phase Noise (Static)			
1 Hz	-85	dBc/Hz	
10 Hz	-125	dBc/Hz	
100 Hz	-145	dBc/Hz	
1 kHz	-160	dBc/Hz	
10 kHz	-165	dBc/Hz	
100 kHz	-165	dBc/Hz	
Short Term Stability (Static)			
τ = 1.0 sec	5.0e-12	ΔF/F	100% test item 25°C in vacuum
Vibration Sensitivity[3]	±1.5e-9/g	ΔF/F	1g sine vibration at 100Hz

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ENVIRONMENTAL CONDITIONS

Parameter	Limit (min.)	Limit (max.)	Unit	Condition
Operating Temperature Range (Acceptance)	-30.0	+70.0	°C	
Storage Temperature Range	-40.0	+85.0	°C	
Radiation[2]	Designed to meet 100krads (Si) total dose; latch-up immune			
Non-Operational Stress (Survival)				
Mechanical Shock[4,5]	MIL-STD-202, Method 213, Table I, Test Cond Letter E			

Sine Vibration[4,5] IAW MIL-STD-202, Method 204	AXIS	Frequency (Hz)	LEVEL (g-pk)	DURATION (Oct/min)	SWEEP RATE
	All	5 to 19	±10.3 mm	2	1 up
		19 to 80	15g		
		80 to 100	8g		

Random Vibration[4,5] IAW MIL-STD-202, Method 214	AXIS	Frequency (Hz)	LEVEL	ACCELERATION (g RMS)	DURATION
	All	20 to 100	+6 dB/oct	30	2 minutes per axis
		100 to 1000	0.63 g^2/Hz		
		1000 to 2000	-6 dB/oct		

MECHANICAL SPECIFICATIONS

Parameter	Limit (max.)	Unit	Condition
Dimensions	----------	------	See Figure 1
Weight	4.0	ounces	
Material	6061-T6 Aluminum, Gold Plated		
Finish	Gold Plating per MIL-G-45204, 50u" min. over Electrodeposited Nickel in accordance with QQ-N-290 Class I, Grade E.		

ADDITIONAL INFORMATION

Item	Description / Requirement
Element Evaluation	IAW MIL-PRF-55310, Class S for microelectronics (FMs only)
Class S Screening	IAW MIL-PRF-55310 (100% FMs only)
Group A Testing	IAW MIL-PRF-55310 (100% FMs only)
Group B Testing	IAW MIL-PRF-55310, Paragraph 4.7.1.5.2, Aging (100% FMs only)

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Enclosure

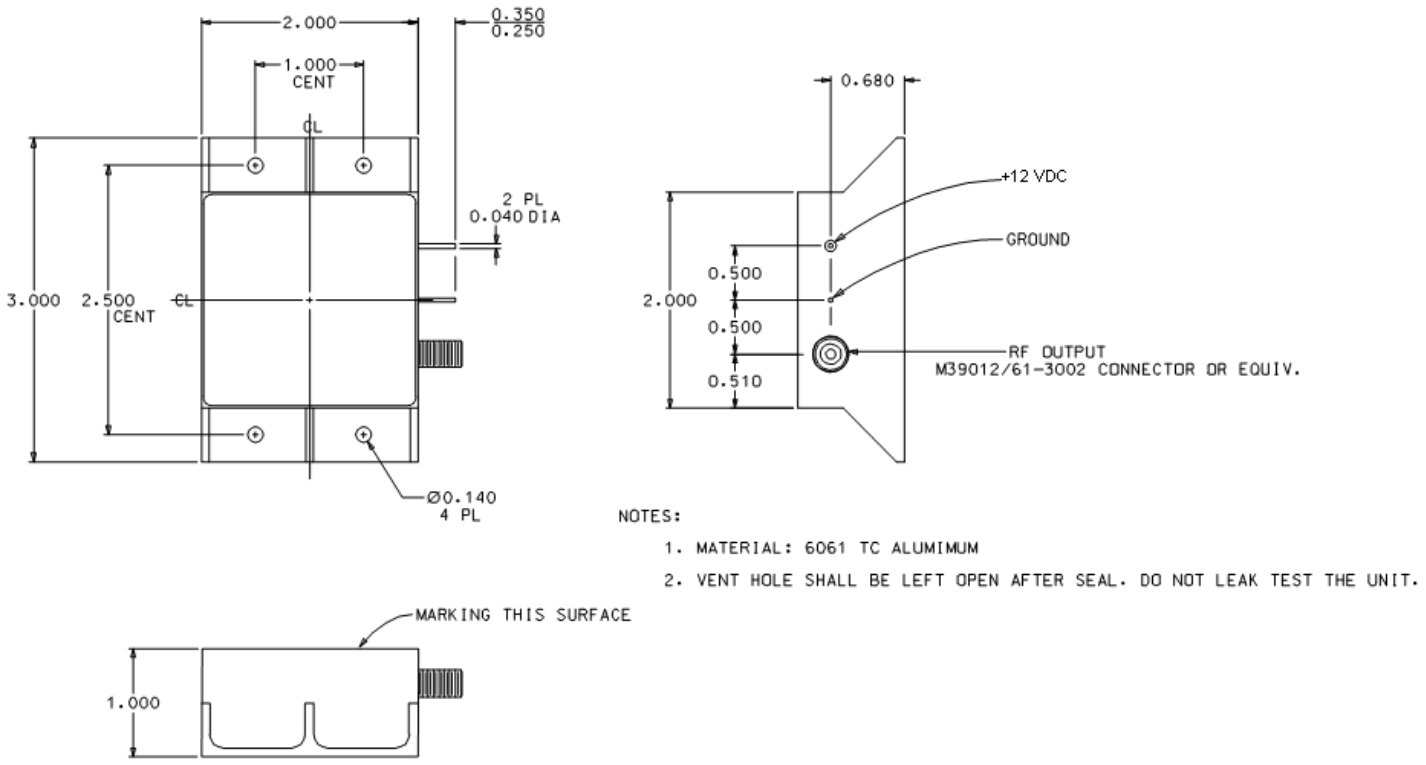

Figure 1

NOTES:
[1] All requirements apply over the operating temperature range unless otherwise specified.
[2] Radiation based upon components inherently tolerant to 100krads total dose.
[3] Met by design, not tested.
[4] Met by design, not tested.
[5] Met by design, not tested.
[6] Flight models will use swept quartz; unswept, cultured quartz may be used in engineering models.
[7] Crystal will utilize 4-point mount.

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