OX-045

Oven Controlled Crystal Oscillator

Features

- Low Phase Noise
- High Stability
- SC-Cut Crystal Standard
- Frequency : 10 MHZ

Applications

- Test Equipment
- Frequency Synthesizers
- Position Location
- Satellite Communications

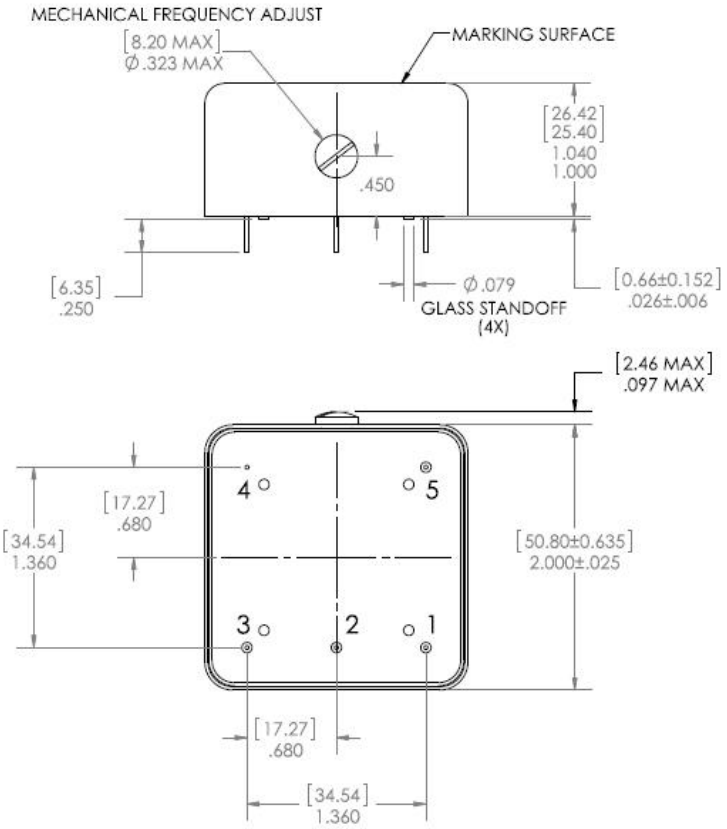
Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
Frequency Stabilities[1]					
vs. operating temperature range (referenced to +25°C)	-3 -5 -10		+3 +5 +10	ppb ppb ppb	0… +70°C -20… +70°C -40… +70°C
Initial Tolerance vs. supply voltage change vs. load change vs. aging / daily vs. aging / 1 year vs. aging / year (following years) ADEV Warm-up Time	-10 -0.5 -0.5 -0.1 -25 -10		+10 +0.5 +0.5 +0.1 +25 +10 5 5	ppb ppb ppb ppb ppb ppb e-12 minutes	at time of shipment, nominal EFC Vs ± 5% Load ± 5% after 72 hours of operation after 72 hours of operation 1 second TAU to ± 10ppb of final frequency (1 hour reading) @ +25°C
Supply Voltage (Vs)					
Supply voltage (Standard)	11.4	12.0	12.6	VDC	
Supply voltage (Option)	14.25	15.0	15.75	VDC	
Power Consumption			9.0 2.0	Watts Watts	during warm-up steady state @ +25°C

Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
RF Output					
Signal		Sinewave			
Load		50		ohm	
Output Power	+8.0	+10.0	+12.0	dBm	50 ohm load
Harmonics			-30	dBc	50 ohm load
		Mechanical Trim			
	±0.2	±0.3	±0.5	ppm	
Frequency Tuning (EFC)					
Tuning Range	±0.10	±0.2	±0.35	ppm	
Linearity			15	%	
Tuning Slope		Positive			
Control Voltage Range	0.0	+2.0	+4.0	VDC	
Additional Parameters[1]					
Phase Noise @10 MHZ		-113 -142 -157 -160 -165 -165	-110 -140 -155 -158 -163 -163	dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	1 Hz 10 Hz 100 Hz 1 KHz 10 KHz 100 KHz
Weight			100	g	
Absolute Maximum Ratings					
Supply voltage (Vs)			18	V	
Output Load			25	ohm	
Operable temperature range	-55		+85	°C	
Storage temperature range	-55		+125	°C	
Shock					MIL-STD-202, Method 213, Condition J, 30 G, 11ms
Vibration					MIL-STD-202, Method 201 and Method 204, Condition A except 5 G to 500 Hz, 1 sweep
Seal					MIL-STD-202, Method 112, Condition D

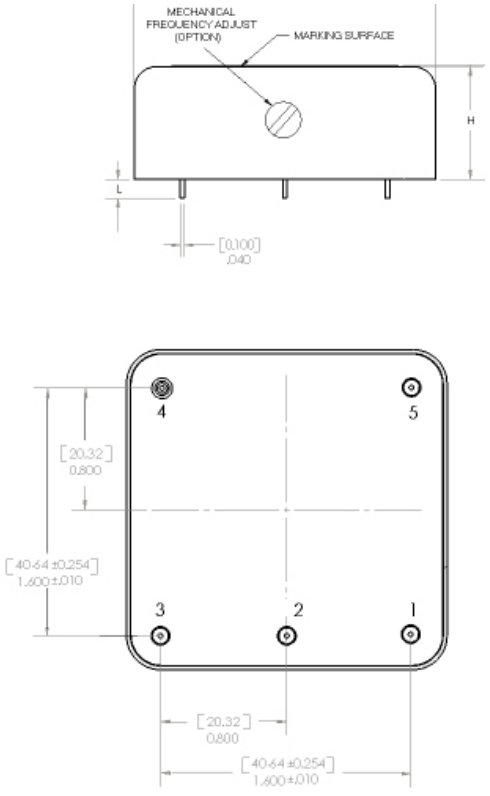
Outline Drawing / Enclosure



Dimensions in [mm] inches

Type A		
Code	Height "H"	Pin Length "L"
0	26.42	6.35

Pin Connections	
1	Electronic Frequency Control (EFC) or N/C
2	No Connect
3	RF Output
4	Ground (Case)
5	Supply Voltage Vs)



Dimensions in [mm] inches

Type B		
Code	Height "H"	Pin Length "L"
1	26.42	6.35

Pin Connections	
1	Electronic Frequency Control (EFC) or N/C
2	No Connect
3	RF Output
4	Ground (Case)
5	Supply Voltage Input (Vs)

Ordering Information

OX - 045 0 - B E T-309 0 - 10M0000000

Product Family
OX: OCXO

Package
50 x 50 mm

Height
0: Type A26.42mm
1: Type B26.42mm

Supply Voltage
A: 15 Vdc
B: 12 Vdc

RF Output Code
E: Sinewave

Temperature Range / Stability Code
D-108: -40°C to +70°C, ±10ppb
J-509: -20°C to +70°C, ±5ppb
T-309: 0°C to +70°C, ±3ppb

Frequency Adjustment
0: EFC and Mechanical
1: Mechanical

Frequency

Notes:
1. Contact factory for improved stabilities or additional product options.
2. Unless other stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C).
3. Subject to technical modification.

For Additional Information, Please Contact

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