Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

OCXO2526AXLG
Low-G Low phase noise OCXO

Features and Benefits

Surface Mountable Design
High Stability vs. Temperature
Quick Warm-Up Time
Low Age Rates
Low Phase Noise
25x25mm Package

Typical Applications

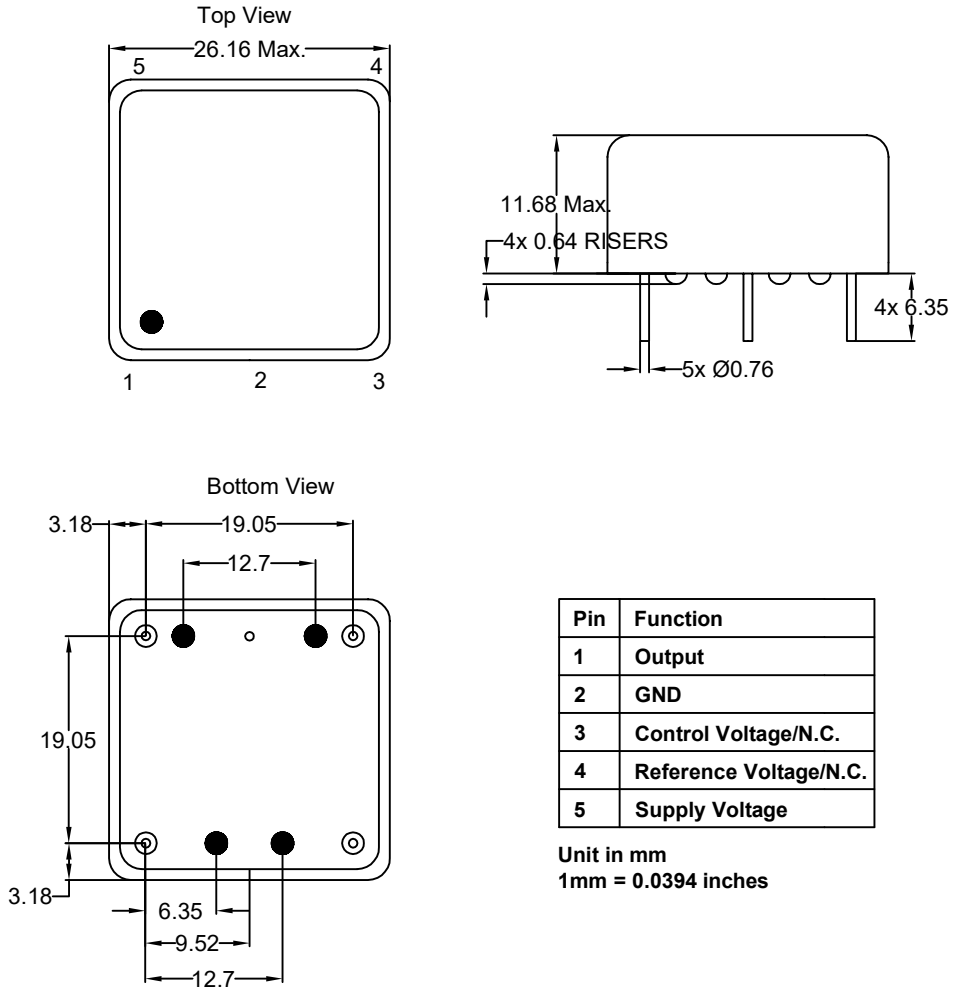
Cellular Base Stations
Instrumentation
Microwave Applications
Radar reference

Description

The OCXO2526AXLG are designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

Mechanical Drawing & Pin Connections

Drawing No: MD200048-1



Pin	Function
1	Output
2	GND
3	Control Voltage/N.C.
4	Reference Voltage/N.C.
5	Supply Voltage

Unit in mm
1mm = 0.0394 inches

Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

OCXO2526AXLG
Low-G Low phase noise OCXO

Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F_{nom}		10		100	MHz	
RF Output							
Signal Waveform				CMOS/TTL			
Load	R_L			15		pF	
H-Level Voltage	V_H		90% Vcc			V	
L- Level Voltage	V_L				10% Vcc	V	
Duty Cycle			45	50	55	%	
Rise/Fall time					10	ns	
Signal Waveform				Sinewave			
Level				+7		dBm	
VSWR		Into 50ohm		1.5:1			
Load			45	50	55	ohm	
Harmonics					-30	dBc	
Power Supply							
Supply Voltage	V_{cc}		11.4	12	12.6	V	
			4.75	5.0	5.25		
			3.13	3.3	3.47		
Warm-up Time	T_{up}	To initial tolerance			3	min	
Power Consumption		Steady state		1.5		W	
		Warm-up			4	W	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)				±1		ppm	
EFC voltage		3.3V,5.0V	0		Vcc	V	
		12V	0		10	V	
Center voltage		5.0V		Vcc/2		V	
		12V		5		V	
Input Impedance				100		kΩ	
Linearity				10		%	
EFC Slope				positive			
Frequency Stability							
Versus Operating Temperature Range		ref. 25ºC	±20	±50	±100	ppb	See ordering information
Initial Tolerance		+25ºC±1ºC			±100	ppb	
Versus supply voltage	V_S	±5% change		±2		ppb	
Versus load		±5% change		±2		ppb	
Acceleration Sensitivity		10MHz output, Vibration profile: 0.001G²/Hz 10Hz to 2kHz	0.3	0.5		ppb/G	
Aging Per Day		after 30 days of operation			±1.0	ppb	
Aging 1st Year					±100	ppb	
Allan Variance		1s		5		e-12	
SSB Phase noise (10MHz)				Sine/CMOS			
		1Hz		-90/-90		dBc/Hz	At 25°C
		10Hz		-120/-120		dBc/Hz	
		100Hz		-140/-140		dBc/Hz	
		1kHz		-145/-145		dBc/Hz	
		10kHz		-150/-150		dBc/Hz	
		100kHz		-155/-155		dBc/Hz	
Environmental,Mechanical Conditions							
Operating temperature range	See ordering information						
Storage temperature range	-55°C to +100°C						
Mechanical shock	MIL-STD-202 Method 213 Test Condition J						
Seal	MIL-STD-202 Method 112 Test Condition D						
Vibration	MIL-STD-202 Method 201						

Note: Values typical under 10MHz

Ordering Information

OCXO2526AXLG	-	10MHz	-	x	x	x	x	x	x
Group				01	02	03	04	05	06

For example, OCXO2526AXLG-10MHz-1-1-2-2-2-2- denotes the OCXO has the following specifications:

Frequency: 10MHz
Temperature Range: -20°C to +70°C
Stability Over Temperature: ±20ppb
EFC: ±1ppm
Supply Voltage: 5V
Output: Sinewave
Reference Voltage: 2.8V

01	Temperature Range
Code	Specification
1	-20°C to +70°C
2	-40°C to +85°C

02	Frequency Stability
Code	Spec
1	±20ppb
2	±50ppb
3	±100ppb

03	EFC
Code	Specification
1	N/A
2	±1ppm

04	Supply Voltage
Code	Specification
1	3.3V
2	5V
3	12V
4	15V

05	Output
Code	Specification
1	CMOS/TTL
2	Sinewave

07	Reference Voltage
Code	Specification
1	N/A
2	2.8V (2.6-3.0)
3	4.5V (4.3-4.7)