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

VCXO1490AX
Low Noise and High Performance VCXO

Features and Benefits

Frequency range: 8MHz-1.5GHz
Supply voltage: 3.3V / 5.0V
Steady current: 150mA Max
Output waveform: LVDS/PECL
Frequency stability vs. Overall: ±50ppm
Pulling range: ±100ppm
Operating temperature: -40°C to +85°C
Size: 14.3x8.7x5.7mm

Typical Applications

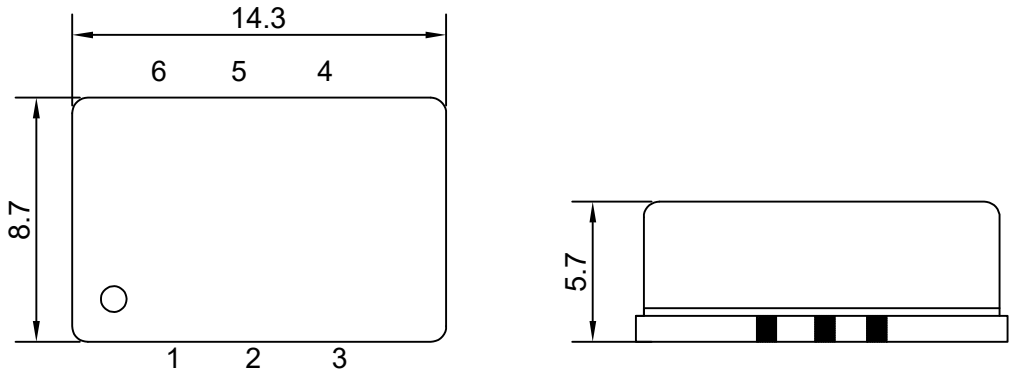
Instrument
Microwave Communication
Test & Measurement
Telecom Systems
Satellite Communication

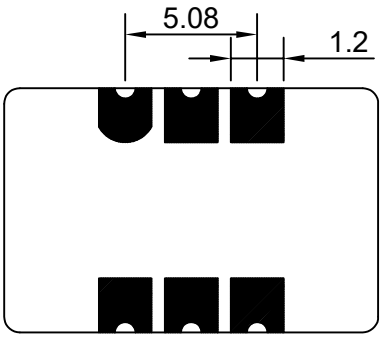
Description

VCXO1490AX offers low noise and high performance, all in a compact package to suit the different communication needs.

Mechanical Drawing & Pin Connections

Drawing No: MD240026-1





Pin Connections

Pin	Function
1	Control Voltage/N.C.
2	E/D
3	GND
4	Output
5	Complementary Output
6	Supply Voltage

Unit in mm
1mm = 0.0394 inches

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F_{nom}		8MHz		1.5GHz		Frequencies above 200MHz use analog multiplier or PLL
RF Output							
Signal Waveform				LVDS			
High Level				1.43		V	
Low Level				1.10		V	
Rise/Fall time					1	ns	
Duty Cycle			47.5	50	52.5	%	
Load				100		ohm	
Differential output				330		mV	
Offset Voltage				1.2		V	
Signal Waveform				PECL			
High Level			Vcc-1.025			V	
Low Level					Vcc-1.62	V	
Rise/Fall time					10	ns	
Duty Cycle			40	50	60	%	
Load				50		ohm	
Power Supply							
Supply Voltage	V_{cc}		3.13	3.3	3.47	V	
			4.75	5.0	5.25	V	
Current Consumption		8MHz			50	mA	
		1.5GHz			150	mA	
Output Control		Enable – Low Disable - High				V	
Frequency Adjustment Range							
Absolute Pulling Range (APR)				±50, ±100		ppm	
Control voltage		3.3V	0.15		3.15	V	
		5.0V	0.5		4.5	V	
Center Voltage				Vcc/2		V	
VC Input Impedance				100		Kohm	
Slope				Positive			
Linearity				10%			
Frequency Stability							
Frequency stability		Reference to +25°C		±50		ppm	
Initial Tolerance		Test at +25°C			±1.5	ppm	
Versus Load		5% change			±1	ppm	
Versus Supply		5% change			±1	ppm	
Aging per year					±2	ppm	
Environmental, Mechanical Conditions							
Operating temperature range	-20°C to +70°C or -40°C to +85°C						
Storage temperature range	-55°C to +125°C						