

## Features and Benefits

80 MHz LVCOMOS output  
 Overall stability less than +/- 30 ppm  
 -40C to +85C operation temperature range.  
 +3.3V supply voltage; 30mA max. current

## Typical Applications

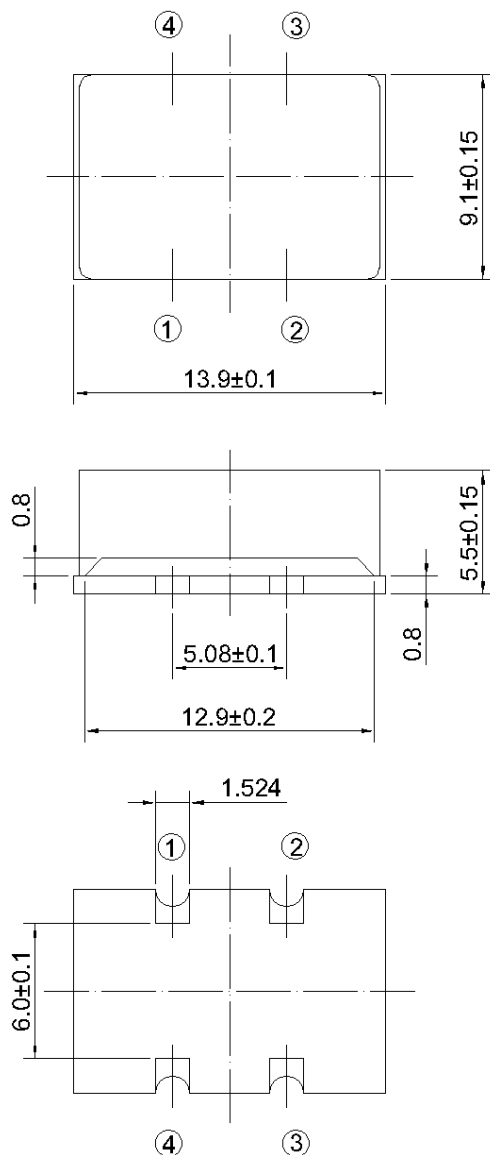
Signal Analyzer Reference For Internal Synthesizers  
 SATCOM SYSTEMS  
 Very Low Jitter Data Communications Ref. Source

## Description

The VCXO914T family utilizes a low noise discrete oscillator circuit topology along with a discrete output amplifier specially impedance matched to 50 ohms for achievement of an ultimate noise floor that is better than -170dBc/Hz.

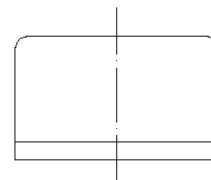
## Mechanical Drawing & Pin Connections

Drawing No: MD140050-1

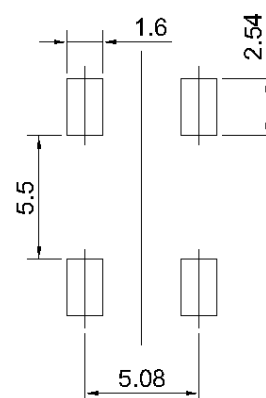


Pin	Function
#1	Vcon
#2	GND
#3	Output
#4	VDD

Unit : mm



Recommended Soldering Pattern



## Specifications

Oscillator Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Operational Frequency Range		F <sub>nom</sub>			80.000		MHz	
LVCOMS	Load					15	pF	
	Rise/Fall time		20%-80%			3	ns	
	Duty Cycle			40		60	%	
	Linearity					10	%	
	Sub-Harmonics		(No multiplication)			-100	dBc	
Power Supply								
Voltage		V <sub>cc</sub>		3.135	3.3	3.465	V	
Current Consumption			At maximum supply voltage			30	mA	
Frequency Control* ( Electronic)								
Control voltage range		V <sub>c</sub>		0.0	1.65	3.0	V	Center voltage 1.65V
Pull Range				+/-40			ppm	
Absolute Pull Range(APR)				+/- 10			ppm	
Modulation Bandwidth			-3dB cut-off frequency	1			KHz	
VC Input Impedance				50			Kohm	
Frequency Stability in Total all causes								
Frequency Stability(Over All)			Frequency stability includes frequency tolerance@25°C and frequency stability vs. operation temperature range and voltage variance and 10years aging.	-30.0		+30.0	ppm	
SSB Phase Noise			1KHz		-138	-135	dBc/Hz	
			10KHz		-158	-155		
			100KHz		-167	-164		
			1MHz		-168	-165		
Environmental Conditions								
Operating temperature range		-40°C to 85°C						
Storage temperature range		-55°C to 90°C						
Vibration Test		DIN EN60068-2-6 reference Std. Test Fc: 10..55Hz; 0.75mm Peak; 55...200Hz; 10g peak 10Cyc.; 3 axis; 1Oct./min.						
Thermal Shock		DIN EN60068-2-14 Test Na: 30min @each temperature 10 cycles, Transfer<1min, -40°C+/-3°C; 85°C+/-3°C						
Mechanical Shock		DIN EN60068-2-27 Test Ea: 6 shock per axis 100g; 6ms both directions.						