

## Dynamic Engineers Inc.

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

## Features and Benefits

Frequency range: 8-60MHz Supply voltage: 3.0/3.3V Current Consumption: 7mA Max Output waveform: Clipped Sine or CMOS/TTL Frequency stability vs. operating temperature: ±0.28ppm Aging per year: ±1.0ppm Max Phase noise@1KHz: -138dBc/Hz Operating temperature: -40°C to +85°C Size:5.0x3.2x1.6mm

#### **Typical Applications**

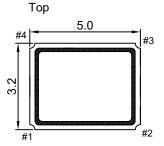
Cellular Base Stations Instrumentation Microwave Applications Radar reference

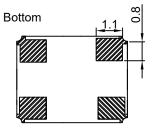
#### **Description**

The TCXO5300AX is 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: MD2400' (-1





	Side	
A A		1.6

**Pin Connections** 

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

Unit in mm 1mm = 0.0394 inches

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Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside; such as data tables and araphs without notification to potential customers who may have earlier revisions in their possession.



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## **Specifications**

Oscillator	0	Condition		Value			
Specification	Sym		Min.	Тур.	Max.	Unit	Note
Frequency Range	Fnom		8		60	MHz	
RF Output							
Signal Waveform				CMO			
Load	RL			15		pF	
H-Level Voltage	V <sub>H</sub>		90%Vcc			V	
L- Level Voltage	VL				10%Vcc	V	
Duty Cycle			45	50	55	%	
Rise/Fall time				10		ns	
Signal Waveform				Clippod	Sinewave		
Level			0.8		Sinewave	Vpp	
Load		±10%		0Kohm//10p		vpp	
Power Supply		±10%	I		'F		
				20.22		V	
Supply Voltage	Vcc			3.0, 3.3			
Start up Time	T <sub>up</sub>			5	7.0	ms m A	
Current Consumption				4.0	7.0	mA	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±5 or			ppm	
			±10			ppin	
EFC voltage	Vc		0	Vcc/2	Vcc	V	
Input Impedance	-			100		kΩ	
Linearity				10		%	
EFC Slope			positive				
Frequency Stability							
				±0.28,			
Versus Operating Temperature Range				±0.5, ±1,		ppm	
				±2 or ±3			
Initial Tolerance		+25°C			±2	ppm	
Aging 1 <sup>st</sup> Year					±1.0	ppm	
Aging 5 years					±3.0	ppm	
	_	4011			±0.0		
		10Hz		-85		dBc/Hz	
		100Hz		-120		dBc/Hz	
SSB Phase noise (10MHz)		1kHz		-138		dBc/Hz	
		10kHz		-142		dBc/Hz	
		100kHz		-147		dBc/Hz	
Environmental, Mechanical Conditions	0000 1	1000 4000 to 10500					
Operating temperature range		'0°C, -40°C to +85°C					
Moisture Sensitivity Level	1						