



## Features and Benefits

Frequency range: 59.3MHz  
Supply voltage: 3.3V  
Current: 7mA Max.  
Output waveform: CMOS  
Frequency stability vs. temperature:  $\pm 1.0$ PPM  
Aging:  $\pm 1$ PPM first year  
Phase noise: -154dBc/Hz@100KHz:  
Operating temperature: -40°C to +85°C  
Size: 5.2x3.4x1.7 mm

## Typical Applications

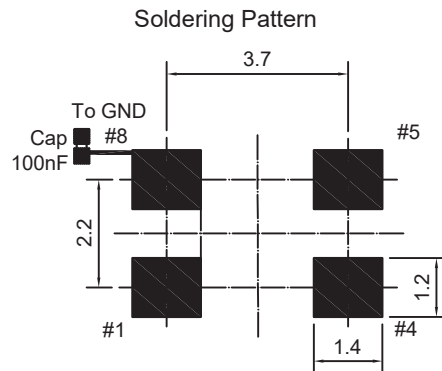
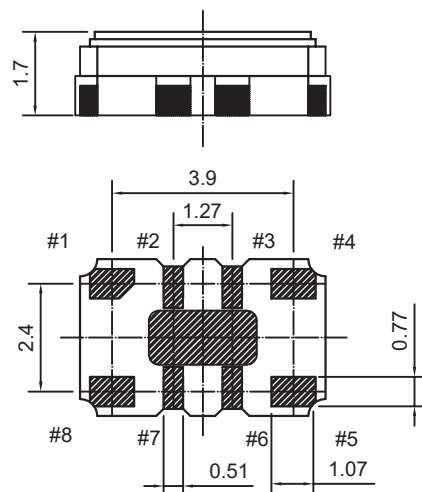
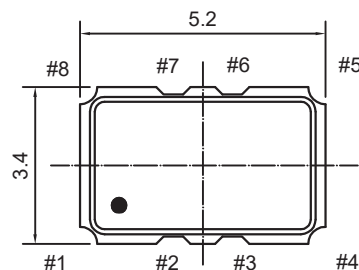
Portable Wireless Communications  
Mobile Test Equipment  
Radio  
SATCOM System

## Description

TCXO5300BT-59.3MHz-A is the low phase noise and small size TCXO. It can be widely used in the portable communication devise.

## Mechanical Drawing & Pin Connections

Drawing No: MD150017-11



### Pin Function

#1	N.C. or GND
#2	N.C.
#3	N.C.
#4	GND
#5	Output
#6	N.C.
#7	N.C.
#8	Vcc

Unit in mm  
1mm = 0.0394 inches



## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f <sub>0</sub>			59.3		MHz	
RF Output							
Output Waveform			CMOS				
Output Level High			0.9*V <sub>cc</sub>			V	
Output Level Low					0.1*V <sub>cc</sub>	V	
Output Load					15	pF	
Start-up Time					10	ms	
Power Supply							
Voltage	V <sub>cc</sub>	±5%		3.3		V	
Current					7	mA	
Frequency Stability							
Frequency tolerance ex. Factory		@+25°C	0		1.0	ppm	
Vs. Temperature		Reference to (FMAX+FMIN)/2			±1.0	ppm	
Vs. Supply Voltage Changes		±5% Referenced to frequency at nominal supply			±0.2	ppm	
Vs. Load Changes		±5% Referenced to frequency at nominal supply			±0.2	ppm	
Vs. Aging@+40°C		1 <sup>st</sup> year			±1.0	ppm	
G-sensitivity		Per axis			2.0	ppb/g	
Phase Noise		10 Hz		-82		dBc/Hz	
		100 Hz		-105			
		1 KHz		-128			
		10 KHz		-145			
		100 KHz		-154			
Environmental Conditions							
Operating temperature range		-40°C to +85°C					
Storage temperature range		-55°C to +105 °C					
Reflow Profiles as per IPC/JEDEC J-STD-020C		≤260°C over10 sec. Max.					

Note: Unless otherwise specified conditions are @+25 °C