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

TCXO5300S-series
10 to 52MHz
Temperature Compensated Crystal Oscillator

Features and Benefits

Frequency Range from 10 MHz to 52 MHz
5.0 mm x 3.2 mm ceramic SMD package
Up to ±0.5 ppm (depends on operating frequency and operating temperature)
HCMOS and Clipped Sine Wave(without DC-CUT capacitor) output optional
3.3V or 5.0V supply
Low power consumption
Low height and light weight
Compatible for automatic assembly

Description

A new series of low power consumption temperature compensated crystal oscillators with the latest low noise integrated circuit topologies.

Typical Applications

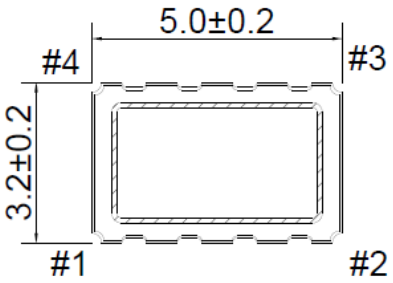
WiMAX, WLAN
Telecommunication
Mobile phone

Mechanical Drawing & Pin Connections

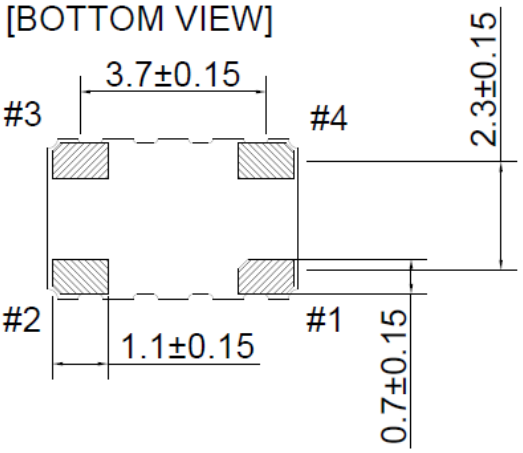
Drawing No: **MD140026-3**

Unit:mm
1mm=0.0394inch

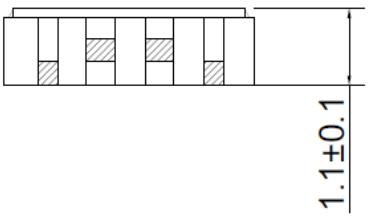
[TOP VIEW]



[BOTTOM VIEW]



[SIDE VIEW]



PIN FUNCTIONS

Pin	Funttion
#1	VCON:VC-TCXO GND/NC:TCXO
#2	GND
#3	Output
#4	VDD

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Specifications

General Specifications					
Parameter	3.3V		5.0V		
	Min.	Max.	Min.	Max.	
Frequency Range	10MHz	52MHz	10MHz	26MHz	
Standard Frequency	13.000000MHz, 14.400000MHz, 16.368000MHz, 16.369000MHz, 16.800000MHz, 19.200000MHz, 19.680000MHz, 20.000000MHz, 26.000000MHz				
Frequency Tolerance* (at 25°C, 1 hour after reflow)	-	±2.0ppm	-	±2.0ppm	
Frequency Stability Vs Supply Voltage (±5%) change Clipped Sine Wave HCMOS Vs Load (±10%) change Vs Aging (@1st year)	 - - - -	 ±0.2ppm ±0.4ppm ±0.2ppm ±1.0ppm	 - - - -	 ±0.2ppm - ±0.2ppm ±1.0ppm	
Supply Voltage Variation (V_{DD}) ±5%	2.97V	3.63V	4.75V	5.25V	
Supply Current Clipped Sine Wave 10 MHz ≤ Fo ≤ 15 MHz 15 MHz ≤ Fo ≤ 26 MHz 26 MHz ≤ Fo ≤ 52 MHz HCMOS 10 MHz ≤ Fo ≤ 52 MHz	 - - - -	 1.5mA 2.0mA 2.5mA 6.0	 - - - -	 1.5mA 2.0mA - -	
Output Level (Clipped Sine Wave)	0.8Vp-p	-	0.8Vp-p	-	
Output Level (HCMOS) Output High (Logic "1") Output Low (Logic "0") Duty	 2.97V - 45%	 - 0.33V 55%	 -	 -	
Load(Clipped Sine Wave)	10KΩ // 10pF				
Load (HCMOS)	15pF		-		
Control Voltage Range (VCTCXO)	0.5V	2.5V	0.5V	2.5V	
Pulling Range (VCTCXO)	±5.0ppm	-	±5.0ppm	-	
Vc Input Impedance (VCTCXO)	100kΩ	-	100kΩ	-	
Phase Noise @ 13.0 MHz 100 Hz	-115dBc/Hz				
1 kHz	-135dBc/Hz				
10 kHz	-148dBc/Hz				
Start-up Time	2ms max.				
Storage Temp. Range	-55°C to +125°C				

Stability vs. Temperature Range Availability			
	Temperature Range		
Stability in ppm	-20°C to +70°C	-30°C to +85°C	-40°C to +85°C
±0.5 (with pulling range < 10ppm available)	Available	Conditional (depends on operating frequency; case by case)	Conditional (depends on operating frequency; case by case)
±1.0	Available	Available	Conditional (depends on operating frequency; case by case)

Other customized specifications maybe available. Please contact Dynamic Engineers Inc. for further details.