



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

Typical Applications

- WiMAX, WLAN
- Telecommunication
- Mobile phone

Description

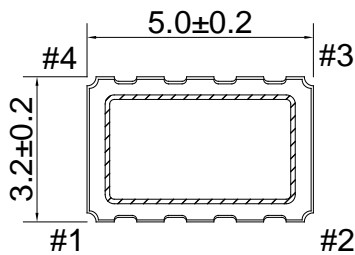
A new series of low power consumption temperature compensated crystal oscillators with the latest low noise integrated circuit topologies.

Mechanical Drawing & Pin Connections

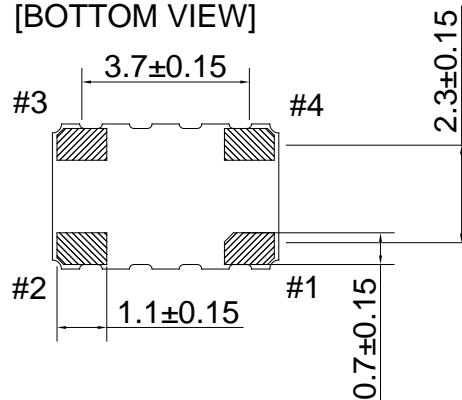
Drawing No:MD140026-3

Unit:mm
1mm=0.0394inch

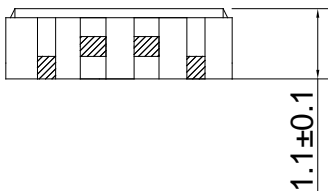
[TOP VIEW]



[BOTTOM VIEW]



[SIDE VIEW]



PIN FUNCTIONS

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



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	-	±0.2ppm	-	±0.2ppm
Vs Load (±10%) change	-	±0.2ppm	-	±0.2ppm
Vs Aging (@1 st year)	-	±1.0ppm	-	±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	-	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			
Stability in ppm	Temperature Range		
	-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.