



Features and Benefits

- Frequency Range from 10 MHz to 52 MHz
- 2.5 mm x 2.0 mm ceramic SMD package
- Up to ±0.5 ppm (depends on operating frequency and operating temperature)
- Clipped Sine Wave outputs
- 1.8V, 2.5V or 2.8V supply
- Low height and light weight
- Compatible for automatic assembly

Description

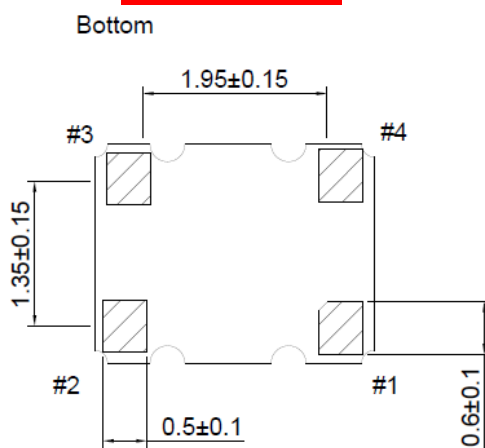
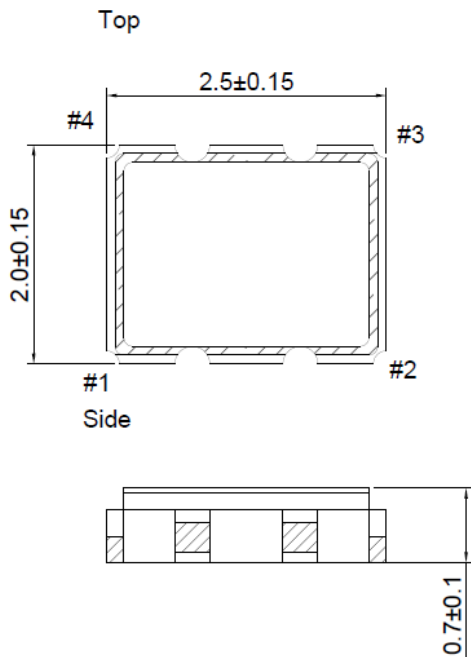
A new series of low height temperature compensated crystal oscillators with the latest low noise integrated circuit topologies.

Typical Applications

- WiMAX, WLAN
- GPS
- Mobile phone

Mechanical Drawing & Pin Connections

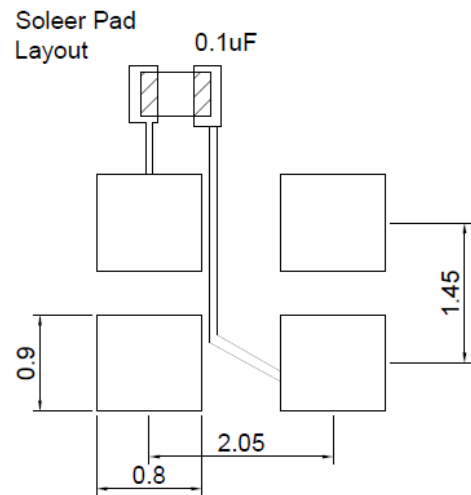
Drawing No: MD160034-1



Pin Connection

Name	Connection
Pin 1	VCON:VC-TCXO GND/NC:TCXO
Pin 2	GND
Pin 3	OUTPUT
Pin 4	VDD

Unit : mm
1mm=0.0394inch



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1uF as close to the part as possible between Vdd and GND pads.



Specifications

General Specifications						
Parameter	1.8V		2.5V		2.8V	
	Min.	Max.	Min.	Max.	Min.	Max.
Frequency Range	10MHz	52MHz	10MHz	52MHz	10MHz	52MHz
Standard Frequency	16.367667MHz, 16.368000MHz, 16.369000MHz, 19.200000MHz, 19.680000MHz, 20.000000MHz, 26.000000MHz, 40.000000MHz, 50.000000MHz, 52.000000MHz					
Frequency Tolerance* (at 25°C, 1 hour after reflow)	-	±2.0ppm	-	±2.0ppm	-	±2.0ppm
Frequency Stability						
Vs Supply Voltage (±5%) change	-	±0.2ppm	-	±0.2ppm	-	±0.2ppm
Vs Load (±10%) change	-	±0.2ppm	-	±0.2ppm	-	±0.2ppm
Vs Aging (@1 st year)	-	±1.0ppm	-	±1.0ppm	-	±1.0ppm
Supply Voltage Variation (V _{DD}) ±5%	1.710V	1.890V	2.375V	2.625V	2.660V	2.940V
Supply Current						
10 MHz ≤ Fo ≤ 26 MHz	-	2.0mA	-	2.0mA	-	2.0mA
26 MHz ≤ Fo ≤ 52 MHz	-	2.5mA	-	2.5mA	-	2.5mA
Output Level (Clipped Sine Wave)	0.8Vp-p	-	0.8Vp-p	-	0.8Vp-p	-
Load	10KΩ // 10pF					
Control Voltage Range (VCTCXO)	0.3V	1.5V	0.4V	2.4V	0.4V	2.4V
Pulling Range (VCTCXO)	±5.0ppm	-	±5.0ppm	-	±5.0ppm	-
Vc Input Impedance (VCTCXO)	500kΩ	-	500kΩ	-	500kΩ	-
Phase Noise @ 19.2 MHz	100 Hz	-115dBc/Hz				
	1 kHz	-135dBc/Hz				
	10 kHz	-148dBc/Hz				
Start-up Time	2ms max.					
Storage Temp. Range	-40°C to +85°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	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)	
±1.5	Available		Available		Available	
±2.0	Available		Available		Available	
±2.5	Available		Available		Available	

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