



Features and Benefits

- Frequency Range from 10 MHz to 52 MHz
- 3.2 mm x 2.5 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 3.0V supply
- Low height and light weight
- Compatible for automatic assembly

Typical Applications

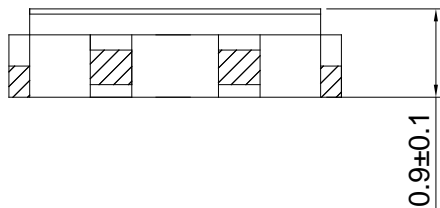
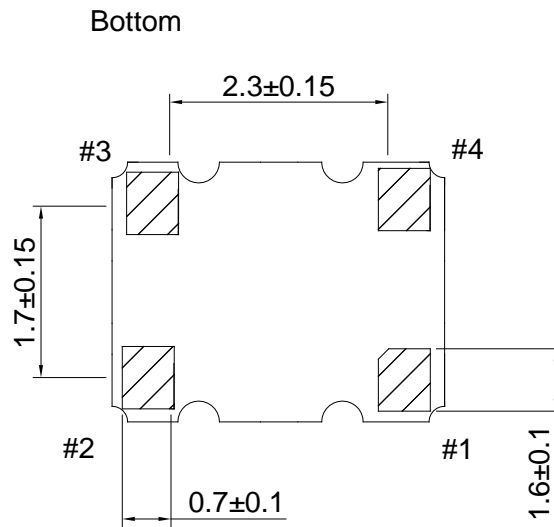
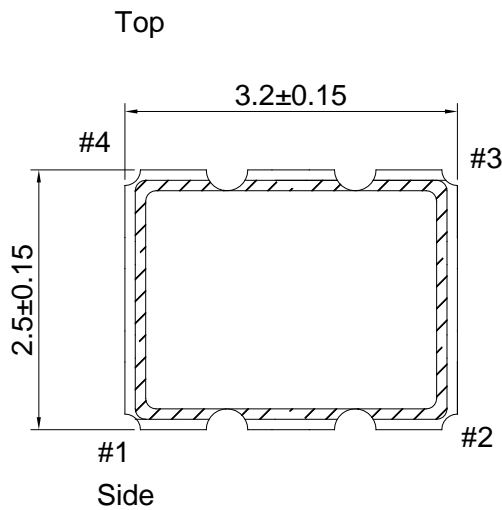
- WiMAX, WLAN
- GPS
- Mobile phone

Description

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

Mechanical Drawing & Pin Connections

Drawing No:MD160035-1



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



Specifications

General Specifications						
Parameter	1.8V		2.5V		3.0V	
	Min.	Max.	Min.	Max.	Min.	Max.
Frequency Range	13MHz	52MHz	10MHz	52MHz	10MHz	52MHz
Standard Frequency	10.000000MHz, 12.800000MHz, 13.000000MHz, 16.367667MHz, 16.368000MHz, 16.369000MHz, 19.200000MHz, 19.440000MHz, 20.000000MHz, 25.000000MHz, 26.000000MHz, 27.000000MHz, 30.000000MHz, 30.720000MHz, 32.000000MHz, 32.000000MHz, 38.400000MHz, 40.000000MHz					
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	2.850V	3.150V
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	0.5V	2.5V
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			
Stability in ppm	Temperature Range		
	-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 maybe available. Please contact Dynamic Engineers Inc. for further details.