

Features

Operational Voltage: 2.5, 3.0V
 Compact & Lightweight
 Low Power Consumption
 External DC-Cut capacitor required (NPO 150pF advised)
 Miniature low profile package

Voltage Controlled Temperature Compensated Crystal Oscillator (VCTCXO) 3.2 x 2.5 x 0.9mm Ceramic SMD 15MHz – 40MHz

Typical Applications

GPS, Bluetooth, AIoT
 Mobile Phone, 5G Station
 WIMAX, WLAN



Outlines & Dimensions (mm)

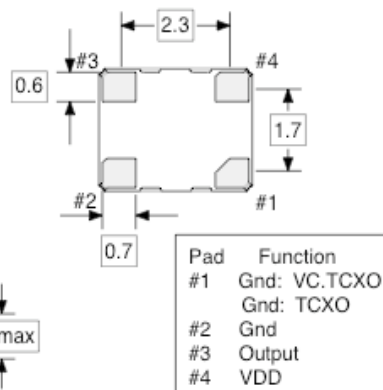
Top View



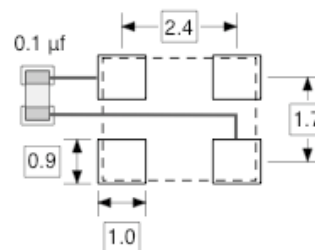
Side View



Bottom View



Solder Pad Layout



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

Electrical Specifications

Parameter	3.0V		2.5V		Unit
	Min	Max	Min	Max	
Supply Voltage Variation (V _{DD}) 5%	2.85	3.15	2.375	2.625	V
Frequency Range	15	40	15	40	MHz
Standard Frequency	16.367667, 16.368, 16.369, 19.2, 20, 26, 40				
Frequency Tolerance *	-	±2.0	-	±2.0	ppm
Frequency Stability					
V _S Supply Voltage (±5%) change	-	±0.2		±0.2	ppm
V _S Load (±10%) change	-	±0.2		±0.2	
V _S Aging	-	±1.0		±1.0	ppm / year
Supply Current					
15MHz ≤ F _O < 26MHz	-	2.0	-	2.0	mA
26MHz ≤ F _O ≤ 40MHz	-	2.5	-	2.5	
Output Level (Clipped sine wave)	0.8	-	0.8	-	Vp-p
Load	10KΩ // 10pF		10KΩ // 10pF		
Control Voltage Range (VCTCXO)	0.5	2.5	0.5	2.5	V
Pulling Range (VCTCXO)	±5.0		±5.0		ppm
V _C Input Impedance (VCTCXO)	500	-	500	-	KΩ
Phase Noise @ 19.2 MHz					
100Hz	-115		-115		dBc/Hz
1 KHz	-135		-135		
10 KHz	-148		-148		
Start Time	-	2	-	2	mSec
Storage Temp. Range	-55	+125	-55	+125	°C

*Frequency at 25°C, 1 hour after reflow

Frequency Stability vs. Temp. Range

Temp.(°C)	ppm	± 0.5	± 1.0	± 1.5	± 2.0	± 2.5
0 ~ +55	S	S	S	S	S	S
-10 ~ +60	S	S	S	S	S	S
-20 ~ +70	S	S	S	S	S	S
-30 ~ +85	O	S	S	S	S	S
-40 ~ +85	X	O	S	S	S	S

S = Standard O = Optional X = Not Available



Specifications subject to change without notice.

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