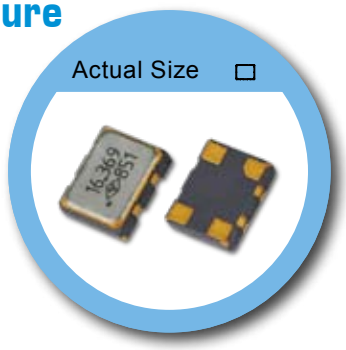
2.5 x 2.0 mm SMD Voltage Controlled Temperature Compensated Crystal Oscillator – TY Type



FEATURE

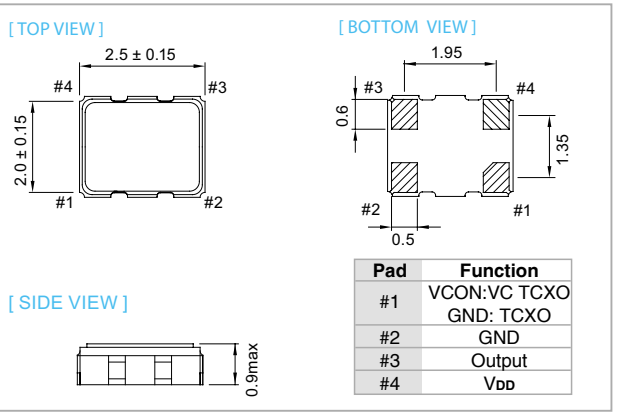
- Typical 2.5 x 2.0 x 0.8 mm ceramic SMD package.
- For automatic assembly.
- Compactness and lightweight.
- Low power consumption.
- VCTCXO available.
- Low thickness
- External DC-CUT capacitor required. NPO 150 pF recommended.

RoHS Compliant Standard

TYPICAL APPLICATION

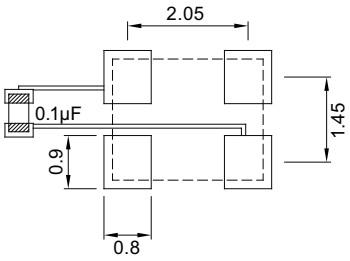
- GPS
- WiMAX, WLAN
- Mobile Phone

DIMENSION (mm)



Pad	Function
#1	VCON:VC TCXO GND: TCXO
#2	GND
#3	Output
#4	VDD

SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	2.8 V		2.5 V		Unit
	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD) 5%	2.66	2.94	2.375	2.625	V
Frequency Range	13	40	13	40	MHz
Standard Frequency	16.367667,16.368,16.369,19.2, 26, 40				
Frequency Tolerance*	–	±2.0	–	±2.0	ppm
Frequency stability					
Vs Supply Voltage (±5%) change	–	±0.2	–	±0.2	ppm
Vs Load (±10%) change	–	±0.2	–	±0.2	
Vs Aging	–	±1.0	–	±1.0	ppm/year
Supply Current					
15 MHz ≦ Fo < 26 MHz	–	2.0	–	2.0	mA
26 MHz ≦ Fo ≦ 40 MHz	–	2.5	–	2.5	
Output Level (Clipped sine wave)	0.8	–	0.8	–	Vp-p
Load	10 KΩ // 10pF		10 KΩ // 10pF		
Control Voltage Range (VCTCXO)	0.4	2.4	0.4	2.4	V
Pulling Range (VCTCXO)	±5.0		±5.0		ppm
Vc Input Impedance (VCTCXO)	500	–	500	–	KΩ
Phase Noise @ 19.2 MHz					
100 Hz	-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

Standard frequency are frequencies which the crystal has been designed and does not imply a stock position.
* Frequency at 25 °C, 1 hour after reflow.

FREQ. STABILITY vs. TEMP. RANGE

Temp (°C) \ ppm	±0.5	±1.0	±1.5	±2.0	±2.5
-0 ~ +55	○	○	○	○	○
-10 ~ +60	○	○	○	○	○
-20 ~ +70	○	○	○	○	○
-30 ~ +85	△	○	○	○	○
-40 ~ +85	×	△	○	○	○

* ○ : Standard △:Available (case by case) ×: Not available