

## TCXO3406

Miniature High Stability TCXO for GPS

### Features

Frequency Range 15 to 40 MHz  
3.2 mm x 2.5 mm x 0.90 mm ceramic  
SMD  
Compact and lightweight  
Low power consumption  
Low cost / excellent stability

### Typical Applications

WLAN / WiMAX  
GPS

### Description

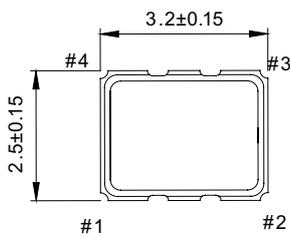
The TCXO3406 family offers low noise compensation techniques combined with high volume manufacturing processes resulting in low cost , tightly distributed performance parameters, and very good overall long term frequency stability and reliability.

### Picture of Part

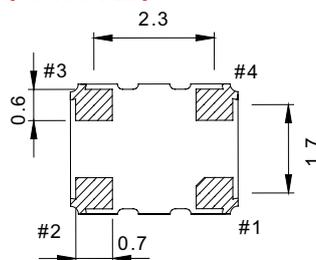


### Physical Dimensions

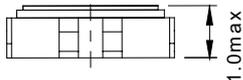
[ TOP VIEW ]



[ BOTTOM VIEW ]



[ SIDE VIEW ]



### Pin Connections

Pin	Function
#1	VCON:VC.TCXO GND:TCXO
#2	GND
#3	Output
#4	V <sub>DD</sub>

**Specification**

TCXO Specification		Sym.	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
<b>Operational Frequency Range</b>		f <sub>0</sub>		15		40	MHz	
	Load						pF	
	H - level voltage	V <sub>H</sub>					V	
	L - level voltage	V <sub>L</sub>					V	
	Rise & Fall time						ns	
	Duty cycle						%	
Clipped Sine-wave ONLY	Level	L		0.8			pk-pk	
	Load Resistance	R <sub>L</sub>			10		Kohm	
	Load Capacitance	C <sub>L</sub>			10		pF	
<b>Power supply</b>								
Voltage		V <sub>cc</sub>		2.375	2.500	2.625	V	3.3V +/- 5% available option
Current consumption		I <sub>cc</sub>				2.5	mA	
<b>Frequency control*</b>								
Control voltage range		V <sub>c</sub>		0.5	1.5	2.5	V	Positive tuning slope
Tuning range				+/- 5			ppm	
V <sub>c</sub> Input Impedance				500			Kohm	
<b>Frequency stability</b>								
vs. temperature			-40°C to +85°C, ref 25°C	-1.0		+1.0	ppm	0.5 ppm available case by case
vs. 5% change in supply voltage			ref V <sub>cc</sub> typ.	-0.200		+0.200	ppm	
Tolerance at 25C				-2.0		+2.0	ppm	Frequency 1 hr after reflow
<b>SSB Phase noise @ 19.2 MHz clipped sine wave Typical</b>			10 Hz				dBc/Hz	
			100 Hz		-115			
			1 kHz		-135			
			10 kHz		-148			
			100 kHz					
Aging	Per Year		Projected yearly aging after 30 days operation	-1.0		+1.0	ppm	
<b>Environmental, mechanical conditions.</b>								
Operating temperature range		<b>-40°C to +85°C maximum range available that is standard</b>						
Storage temperature range								
Mechanical shock								
Vibration								
Soldering								

## Ordering Information

TCXO3406-XX.XXXXXX-W-Y

1. Field " XX.XXXXXX " is the Output Frequency to six decimals in MHz
2. Field " W " is Operating Temperature Range and Freq. Stability :
  - a. " 0 " for -20 °C to +70 °C and +/- 0.500 ppm
  - b. " 1 " for -20 °C to +70 °C and +/- 1.000 ppm
  - c. " 2 " for -20 °C to +70 °C and +/- 2.000 ppm
  - d. " 3 " for -40 °C to +85 °C and +/- 1.500 ppm
  - e. " 4 " for -40 °C to +85 °C and +/- 2.000 ppm
  - f. " 5 " for -40 °C to +85 °C and +/- 2.500 ppm
3. Field " Y " is for Supply voltage :
  - a. " 0 " for 2.5V +/- 5% supply
  - b. " 1 " for 3.3V +/- 5% supply

## Part Number Example

TCXO3406-26.000000-0-0

26MHz operating frequency to six decimal places

-20°C to 70°C with +/- 0.500 ppm

2.5V supply voltage