

TCXO3403A

High volume High Performance TCXO

Features

Frequency Range 10 to 32 MHz
7mm x 5mm x 1.85mm ceramic SMD
Compact and lightweight
Low power consumption
Low cost / excellent stability

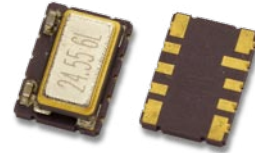
Typical Applications

Femtocell base stations
Wireless Communications
WLAN / WiMAX / WIFI

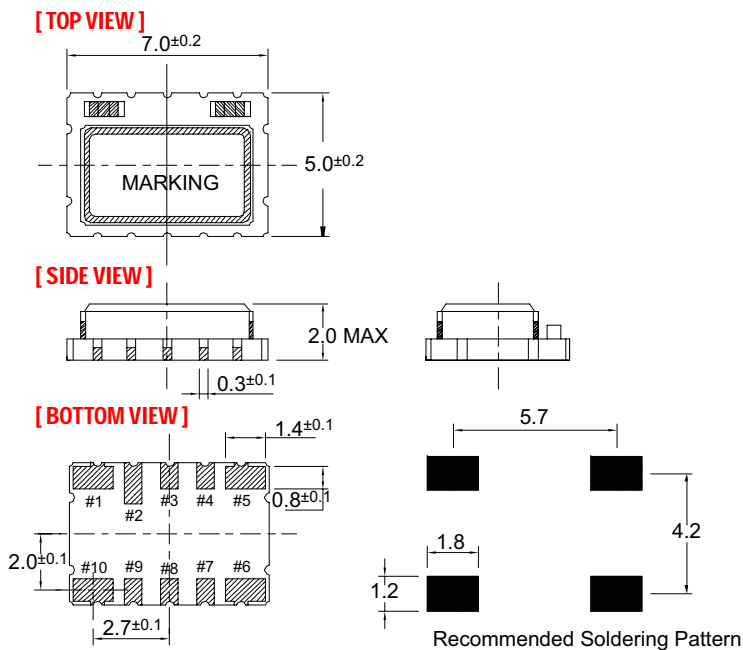
Description

The TCXO3403A 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



Pin Connections

Pin	Function
#1	VCON : VCTCXO GND : TCXO
#2	NC
#3	NC
#4	NC
#5	GND
#6	Output
#7	NC
#8	NC
#9	NC
#10	VDD

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Specification

TCXO Specification		Sym.	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Operational Frequency Range		f_0		10		32	MHz	26 to 32 MHz only with 3.3V
HCMOS Square Wave Option	Load					15	pF	
	H - level voltage	V_H		0.9Vcc			V	
	L - level voltage	V_L				0.1Vcc	V	
	Rise & Fall time						ns	
	Duty cycle			45		55	%	
Clipped Sine-wave Option	Level	L		0.8			pk-pk	
	Load Resistance	R_L			10		Kohm	
	Load Capacitance	C_L			10		pF	
Power supply								
Voltage		V_{cc}		3.135	3.300	3.465	V	5.0 V option available to 26MHz
Current consumption		I_{cc}				2.5	mA	
Frequency control*								
Control voltage range		V_c		0.5	1.5	2.5	V	Positive tuning slope
Tuning range				+/- 5			ppm	
Vc Input Impedance						500	Kohm	
Frequency stability								
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 Vcc typ.	-0.200		+0.200	ppm	
Tolerance at 25C				-2.0		+2.0	ppm	Frequency 1 hr after reflow
SSB Phase noise			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	
Environmental, mechanical conditions.								
Operating temperature range		-40°C to +85°C maximum range available that is standard						
Storage temperature range		-55°C to +125°C						
Mechanical shock								
Vibration								
Soldering								

Ordering Information

TCXO3403A-XX.XXXXXX-W-Y-X-Z

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 -40 °C to +85 °C and +/- 0.500 ppm
 - d. " 3 " for -40 °C to +85 °C and +/- 1.000 ppm

***NOT all choices in section 2 available: Must consult factory for specific frequency and stability combination.

3. Field " Y " is Power Supply Option:
 - a. " 0 " for 5V +/- 5%
 - b. " 1 " for 3.3V +/- 5%
4. Field " X " is Output Wave Option:
 - a. " 0 " for clipped sine output
 - b. " 1 " for HCMOS squarewave
5. Field " Z " is Option:
 - a. " 0 " for VCTCXO with voltage control
 - b. " 1 " for clock TCXO

Part Number Example

TCXO3403A-19.200000-3-0-1-1

19.200000 MHz Operating Frequency

Operating Temperature of -40 °C to +85 °C

+/- 1.000 ppm Frequency Stability

5 volt +/- 5% supply

HCMOS output wave

Clock TCXO