

Features

Frequency 10 MHz Rugged
 7 mm x 5 mm x 2.54 mm SMD
 withstand 100000 g's of shock
 G-sensitivity as low as 0.3 ppb/G
 Excellent phase noise

Picture of Part



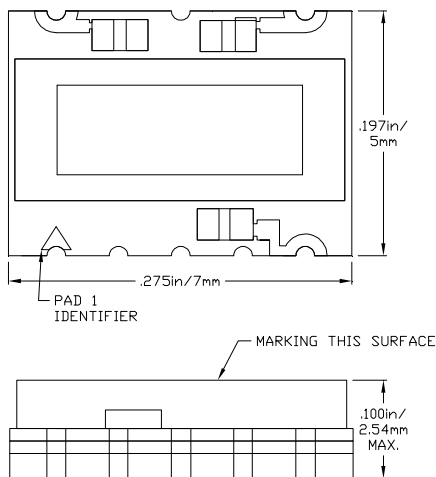
Typical Applications

Satellite Communications, WiMAX, WLAN, Stratum3, Femtocell
 Mobile radio
 GPS Timing / Synchronization

Description

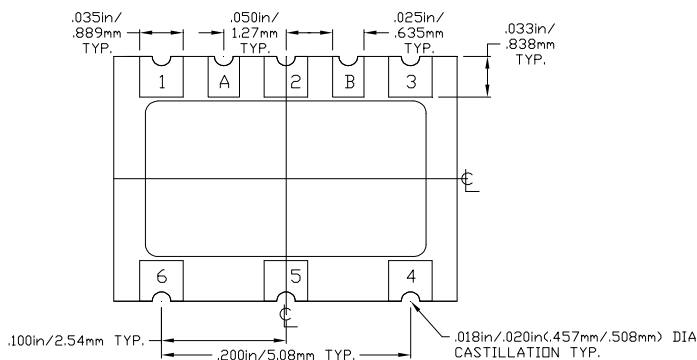
The TCXO3412 represents a new generation of miniaturized SMD designs
 Capable of withstanding high shock and vibration along with extreme
 Acceleration. The 3412 serves as a highly stable low noise reference oscillator for
 Critical timing applications in harsh environments.

Mechanical Drawing and PIN Connections



Pad Connections

- 1 - EFC
- 2 - Internal Use Only
- 3 - 0 V & Case Gnd
- 4 - Output
- 5 - Tri-State (enable Hi or float)
- 6 - VSupply
- A - Internal Use Only
- B - Internal Use Only



Specification

TCXO Specification	Sym.	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency Range	f ₀			10		MHz	
Clipped Sine-wave option	Level	L	0.8			pk-pk	
	Load	RL		100		Kohm	
	Load	CL		10		pF	
Power supply							
Voltage	V _{cc}		4.75	5.0	5.25	V	
Current consumption	I _{cc}				3.0	mA	Clipped sine wave
Frequency control*							
				N/A			
Enable Disable	Pad 5	No Connect Pad 5 also ENABLE	2.8V Enable		Disable 0.2V		ENABLE means output present on pad 4
Frequency stability							
vs. temperature		-55°C to +95°C, ref 25°C	-2.0		+2.0	ppm	
vs. 5% change in supply voltage		ref V _{cc} typ.				ppb	
SSB Phase noise For 10 MHz HCMOS Typical		10 Hz		-95		dBc/Hz	for 10 MHz HCMOS Typical
		100 Hz		-120			
		1 kHz		-140			
		10 kHz		-150			
		100 kHz		-150			
Allan variance		1 s				e-12	
Aging		Projected aging after 30 days operation					
	Per Year				+/-1.0	ppm	
Environmental, mechanical conditions.							
Operating temperature range		-55°C to +95°C maximum range available that is standard					
Storage temperature range		-55°C to +105°C					
Mechanical shock		Per MIL-STD 202G , Method 213, Condition F					
Vibration		Per MIL-STD 202G , Method 214, Condition I-F					

Ordering Information

TCXO3412-10MHz-W

1. . Field “ W “ is Operating Temperature Range and Freq. Stability :

a. “ 0 “ is +/- 2 PPM from -40C to +85C

b. “ 1 “ is +/- 2 PPM from -55C to +95C