

## TCXO3627GR-20MHz-A

36.1mm x 27.0mm x 13.3mm

+/- 50 ppb from -55C to 95C

### Features

Standard Frequency 20MHz  
+/- 50 ppb from -55C to 95C  
Rugged package design for shock and vibration  
CMOS output  
3.3 V supply; 15 mA max. current  
Acceleration less than 2.5 ppb per G  
Less than 0.7 ppb per G option available

### Typical Application

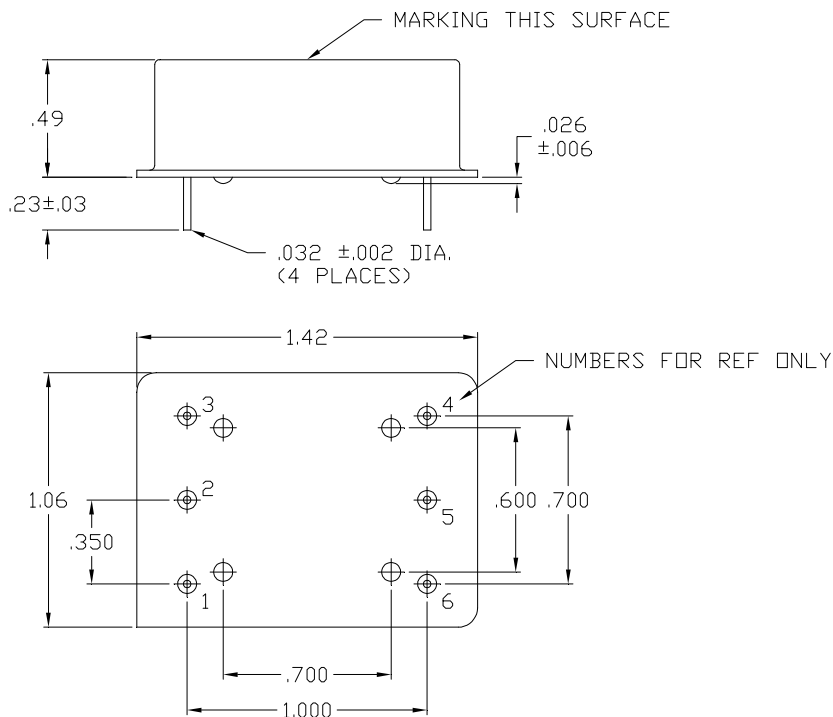
Cellular base stations  
Land mobile radio  
GPS Timing / Synchronization  
Satellite Communications  
Test and Measurement

### Description

The TCXO3627GR-20MHz-A represents a new generation of proprietary temperature compensation technology developed to further bridge the stability GAP between OCXO's and TCXO's.

Using the latest advances in precision crystal manufacturing and software compensation algorithms, The new device is able to achieve OCXO-type stability of 50 ppb over -55C to 95C.

### Physical Dimensions



### Pin Connections

#### Pin Connections

- 1 - EFC
- 2 - Vref
- 3 - Supply V
- 4 - Output
- 5 - N/C
- 6 - 0V, Case Gnd

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**Specifications**

VCTCXO Specification	Sym.	Condition	Value			Unit	Note	
			Min.	Typ.	Max.			
<b>Operational Frequency</b>	f <sub>0</sub>			20.000000		MHz		
CMOS Output	Load			15		pF		
	Duty Cycle		Symmetry	40	50	60	%	
	Logic High			2.97			volts	
	Logic Low					0.33	volts	
	Rise / Fall					10	nsec	
<b>Power supply</b>								
Voltage	Vcc		3.150	3.300	3.450	V		
Current consumption	Icc				15	mA		
<b>Frequency control*</b>								
Control voltage range	Vc		0.000	1.650	3.300	V	Positive tuning slope	
Tuning range				+/- 5.0		ppm		
Acceleration Sensitivity					2.500	ppb/G	**NOTE :can obtain Low G option of less than 0.7 ppb/G via sorting	
<b>Frequency stability</b>								
vs. temperature		-55 °C to +85 °C, ref 25°C	-50		+50	ppb	Based on formula :	
vs. 5% change in supply voltage		ref Vcc typ.	-100		+100	ppb	Delta F =	
vs function of control voltage		From Vc min to max	-100		+100	ppb	( Fmax – Fmin ) / ( Fmax + Fmin )	
<b>SSB Phase noise For 10 MHz sine wave Typical</b>		10 Hz		-95		dBc/Hz		
		100 Hz		-125				
		1 kHz		-150				
		10 kHz		-155				
		100 kHz		-158				
<b>Aging</b>		Projected aging after 30 days operation						
	Per Year				+/-0.5	ppm		
<b>Environmental conditions.</b>								
Operating temperature range		<b>-55 °C to +95 °C maximum range available that is standard</b>						
Storage temperature range		<b>-55 °C to +105 °C</b>						