Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

OCXO2013BT-16MHz-A-V
16MHz Sinewave OCXO

Features and Benefits

Frequency range: 16MHz
Supply voltage: 5.0V
Steady state: 80mA Max
Output waveform: Sinewave
Frequency stability vs. operating temperature: ±200.0ppb
Aging: ±0.3ppm year
Phase noise@10KHz: -150dBc/Hz
Operating temperature: -40°C to +85°C
Size:20.8x13.2x7.8mm

Typical Applications

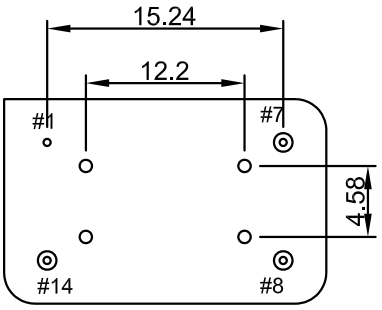
Small Cell, Portable Telecommunication Device
Test and Instrumentation
Synthesizer
Digital switch
Reference Timing Circuit

Description

OCXO2013BT-16MHz-A-V is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability.
These characteristics make it an excellent choice for timing applications.

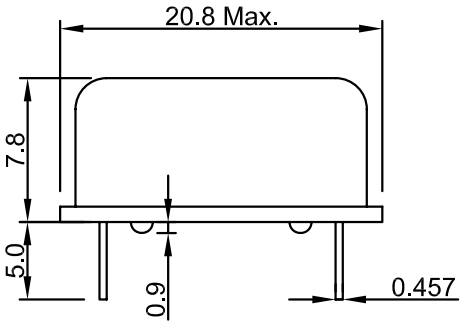
Mechanical Drawing & Pin Connections

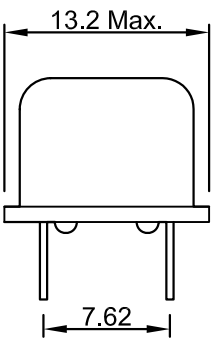
Drawing No: **MD150026-2**



Pin Function

#1	Vc
#7	GND
#8	RF Output
#14	Vcc





Unit: mm
1mm=0.0394inch

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F_{nom}			16		MHz	
RF Output							
Waveform				Sinewave			
Output Level			+4			dBm	
Load		±5%		50		ohm	
Harmonics					-15	dBc	
Spurious					-70	dBc	
Electrical Frequency Adjustment							
Tuning Range			±2.5			ppm	
Control Voltage	V_c		0.5		5.0	V	
Slope				positive			
Power Supply							
Supply Voltage	V_{cc}		4.8	5.0	5.2	V	
Steady State Current		+25°C			80	mA	
Warm up Current		Duration 10 s			300	mA	
Frequency Stability							
Versus Operating Temperature Range		-40°C to +85°C			±200	ppb	
Versus supply voltage		±0.2V change			±0.1	ppm	
Versus Load		±5% change			±10	ppb	
Allan Deviation		0.1-30 sec			1.0	E-10	
Aging Per Day		after 30 days operation			±1.0	ppb	
Aging 1st Year					±0.3	ppm	
Aging 10 Years					±2.5	ppm	
Warm-up Time		@25°C			60	sec	Within ±100ppb
Phase Noise		10Hz			-110	dBc/Hz	
		100Hz			-135	dBc/Hz	
		1kHz			-145	dBc/Hz	
		10kHz			-150	dBc/Hz	
Environmental, Mechanical Conditions							
Operating temperature range	-40°C to +85°C						
Storage temperature range	-55°C to +125°C						
Recommended Hand Soldering Conditions	+235°C ± 5°C Duration < 10s						
Vibration	Acceleration: 20g, 10Hz up to 2000 Hz and down to 10 Hz						
Shock	5000 g, half sine, 3 ms (3 shocks each, 6 directions)						