

# Dynamic Engineers Inc.

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

# **Features and Benefits**

Frequency range: 10MHz Supply voltage: 5.0V Steady current: 200mA Max. Output waveform: Sinewave Frequency stability vs. operating temperature: ±100ppb Aging: ±10ppb/day Operating temperature: -40°C to +85°C Size: 20.7x13.1x8.5mm

## **Typical Applications**

Instrument Reference Microwave Communication Clock Reference for Microwave Signal Source Test & Measurement Telecom Systems

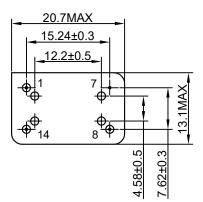
#### **Description**

The OCXO2014BF-10MHz-B-V is the 10MHz sinewave output OCXO. The frequency stability vs. temperature can less than  $\pm$ 100PPB and the day aging can be less than  $\pm$ 10PPB. It can be widely used in the communication device to improve the accuracy.

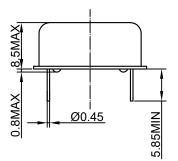
### **Mechanical Drawing & Pin Connections**

Drawing No: MD140072-1

#### **Bottom View**



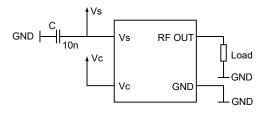
Side View



Pin Connections:

PIN #	Symbol	CONNECTION			
1	Vc	Control Voltage(EFC)			
7	GND	Ground			
8	RF OUT	RF Output			
14	Vs	Supply Voltage			

Unit in mm 1mm = 0.0394 inches



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Rev. 1

Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside, such as data tables and araphs without notification to potential customers who may have earlier revisions in their possession.



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## **Specifications**

Oscillator	C. m	Condition	Value			Unit	Nete
Specification	Sym	Condition	Min.	Тур.	Max.	Unit	Note
Operational Frequency	f <sub>0</sub>			10		MHz	
Initial Tolerance	(f-f <sub>0</sub> )/f <sub>0</sub>	Vc@center value			±0.5	ppm	@+25°C
RF Output							
Waveform			Sinewave				
Load	R∟			50		Ohm	
Output Level			+3			dBm	
Harmonic					-25	dBc	
Power Supply							
Voltage	V <sub>cc</sub>		4.75	5.0	5.25	V	
Power Consumption		Warm-up			500	mA	
		Steady state, @+25°C			200	mA	
Warm-up Time	TF	@+25°C, ∆f <sub>final</sub> / f₀ < ±0.1 ppm			120	S	
Frequency Control							
Control Voltage Range	Vc		0.25	2.5	4.75	V	
Tuning Range			±1.0			ppm	
Input Impedance			100			Kohm	
EFC Slope		$ riangle \mathbf{f}/ riangle V_{c}$	Positive				
Frequency Stability							
Versus Temperature		ref 25°C			±100	ppb	
Versus Supply Voltage		±5% change			±10	ppb	
Versus Load		±10% change			±20	ppb	
Aging Per day		After 30 days of			±10	ppb	
First rear		operation			±0.5	ppm	
Environmental Conditions							
Operating Temperature Range		-40°C to +85°C					
Storage Temperature range	e	-55°C to +125 °C					