## **Features and Benefits**

High stability OCXO Sine wave output Frequency Tuning Input Phase noise less than -172dBc/Hz @10kHz offset 180 sec. max warm-up 20.0x20.2x11.7mm max

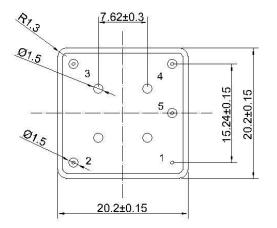
## **Description**

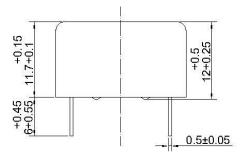
The OCXO2020MX is High stability with Sine wave output OCXO.

## **Typical Applications**

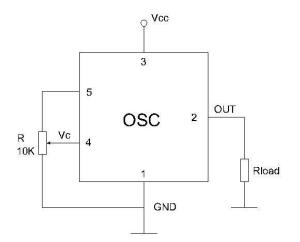
Ref. for Microwave comm. System Signal analyzer reference for internal synthesizers SATCOM systems

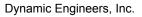
## **Mechanical Drawing & Pin Connections**





### Drawing No: MD140069-1





Rev.1

# **Specification**

OCXO Specification	Sym	Condition	Min.	Value Typ.	Max.	Unit	Note		
Nominal Frequency	f <sub>0</sub>		IVIII.	88.052500	IVIAA.	MHz			
RF Output	10			00:032000					
Output waveform				Sine wave		1			
Level	L		+10	Sille wave		dBm	+		
Load			45	50	55	Ohm	т		
Harmonics level	<u> </u>		45	50	-30	dBc			
Spurious level					-30 -80	dBc			
					-80	UBC			
Power Supply			44.4	10.0	40.0	N/			
supply Voltage Warm-up current	Vcc	Vcc = 12.0V	11.4 220	12.0	12.6 300	V mA			
		@ +25°C,	220		300	ША			
Continuous current		Vcc = 12.0V			120	mA			
Warm-up time	t <sub>up</sub>	To Δ f/f=1e-7, @+25°C			180	sec.			
Frequency Control*									
Input resistance	R <sub>in</sub>			11		kOhm			
Voltage range	Vc		0		4.2	V			
Factory set control voltage	Vc0	Disconnected Vc pin	1.65	2.1	2.55	V			
Slope				Positive					
	(f <sub>L</sub> -f)/f	Vc=0V			-1.0	ppm	+		
Frequency range	(f-f)/f	Vc=Vc0		0		ppm			
	(f <sub>H</sub> -f)/f	Vc=V <sub>REF</sub>	1.0			ppm	+		
Reference output	VREF		4.1	4.2	4.3	V			
Out resistance of V <sub>REF</sub>				91		Ohm			
Frequency Stability		•							
Initial Tolerance	(f-f <sub>0</sub> )/f <sub>0</sub>	@+25°C, Vc=Vc0	-0.2		+0.2	ppm	+		
Vs. Temperature	(1.10)/10	0°C to +50°C							
		(ref +25°C)			+/-200	ppb	+		
		-20°C to +70°C					_		
		(ref +25°C)			+/-500	ppb	+		
Vs. Supply Voltage		ref Vcc typ.			+/-5	ppb			
Vs. Load		ref R <sub>L</sub> typ.			+/-5	ppb			
Per day		After 30days			+/-3	ppb			
Aging Per year		operation			+/-0.3	ppm			
Phase Noise		·							
		100Hz			-131				
SSB Phase Noise		1kHz			-157	dBc/Hz			
		10kHz			-172				
		100kHz			-175				
Environmental									
Power voltage	-0.5V to	14.4V							
Control voltage		-1.0V to 6.0V							
Operating temperature range	-20°C to	o +70°C							
Storage temperature range	-60°C to	-60°C to +90°C							
Humidity		Hermetically sealed							
Mechanical Shock		Per MIL-STD-202, 30G, 11ms							
	Per MIL-STD-202, 5G to 500Hz								
Vibration		-010-202, 5010500112	Hand solder only – not reflow compatible 260°C 10s (on pins)						
Vibration Soldering conditions			mpatible 26	0°C 10s (on pins	)				

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