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: 3.3V

Steady current: 400mA/Max Output waveform: Sinewave

Frequency stability vs. operating temperature: ±0.5ppb

Aging: ±0.1ppm per year

Phase noise@100KHz: -160dBc/Hz
Operating temperature: -40°C to +80°C

Size: 20.2x20.2x13.8mm

Typical Applications

GPS Disciplined Mobile Frequency Standards Portable Instrumentation Mobile Communication Systems Battery Supply Beacons

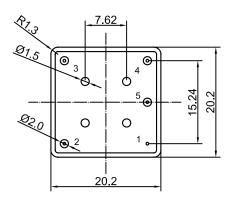
Description

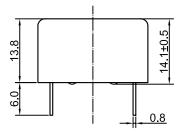
DOCXO2020AW-10MHz-A-V offers high frequency stability, low long-term aging and low phase noise, all in a compact package to suit the different communication needs.

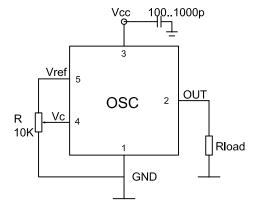
Mechanical Drawing & Pin Connections

Drawing No:

MD140069-9







Pin Connections

Pin	Signal
1	GND
2	RF Out
3	+V Supp l y
4	Electrical tuning
5	Reference voltage

Unit in mm 1mm = 0.0394 inches



Dynamic Engineers Inc.

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DOCXO2020AW-10MHz-A-V Tậ ãœc ¦^ÉP ở @Ŵœà ặốc ÁF€T P: ÁJÔÝU

Specifications

Oscillator	Sym	Condition	Value			11-14	Nere
Specification			Min.	Тур.	Max.	Unit	Note
Operational Frequency	F ₀			10		MHz	
RF Output							
Signal Waveform			Sine wave				
Level	L		4			dBm	
Load	RL		45	50	55	ohm	
Harmonics level					-30	dBc	
Power Supply		1					
Supply Voltage	V _{cc}	4. 0700.	3.15	3.3	3.45	V	
Warm-up Time	T _{up}	At +25°C to ∆f/f=1e-7			180	sec	ref to freq after 15 min of operation
Power Consumption		Steady state, +25°C			400	mA	
'		Warm-up	900		1200	mA	
Frequency Adjustment Range							
	(fL-f)/f	Vc=0 V			-0.3	ppm	
Electronic Frequency Control (EFC)	(f-f)/f	Vc=Vc0		0		ppm	
	(fH-f)/f	Vc=Vref	+0.3			ppm	
EFC voltage	V _c		0		2.9	V	
Preset control voltage	Vc0	disconnected Vc pin	1.2	1.4	1.6	V	
Input resistance	Rin			11		kΩ	
Output resistance of Vref				91		ohm	
Reference voltage	Vref		2.7	2.8	2.9	V	
Frequency Stability							
Versus Operating Temperature Range		@+25°C			±0.5	ppb	
Initial Tolerance @+25°C		$(f-f_0)/f_0$	-0.1		+0.1	ppm	at +25°C, Vc=Vc ₀
Versus supply voltage	Vs	Ref Vcc typ			±0.3	ppb	
Versus load		5% change			±0.3	ppb	
Aging Per Day		After 30 days of			±1	ppb	
Aging 1 st Year		operation			±0.1	ppm	
		1Hz		-95		dBc	
00D Dhara a 'a '00at'a Mahara a '0		10Hz		-125		dBc	
SSB Phase noise (Static. Values are for		100Hz		-150		dBc	
reference only and are subject to change.)		1kHz		-155		dBc	
Change.)		10kHz		-160		dBc	
		100kHz		-160		dBc	
Environmental, Mechanical Conditions							
Operating temperature range -40°C to 8							
Storage temperature range	-60°C to 90°C						
Power voltage	-0.5V to 4V						
Control voltage	-1V to 4V						
Air flow velocity	0.5 m/s maximum						
Humidity	Hermetically sealed						
Mechanical shock	Per MIL-STD-202,30G,11mS						
Vibration	Per MIL-STD-202, 10G to 2000 Hz						
Soldering conditions							
Washing conditions	Washing v	with water or alcohol-bas	ed deterg	ent allowed o	nly with fin	ai enough	drying stage