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

OCXO5050Z-10MHz-A-V
Ultra Low Noise Sine Wave OCXO

迪拉尼(DEI)发布新型的恒温晶体振荡器(OCXO)

OCXO5050Z系列是为在1秒闸门的时间段内提供小于0.0006 ppb的短期稳定性而专门设计，这是通过使用超低噪声SC切割谐振器设计和处理技术实现的，使得在1 Hz偏移处的相位噪声优于-108 dBc / Hz。

除了卓越的阿伦方差（短期稳定性），该恒温晶体振荡器可在-40°C至+ 85°C的工作温度范围内提供小于±0.2 ppb的稳定性。

该恒温晶振非常适用于卫星通信地面站定时模块，因此本产品可与铷钟标准结合使用。客户定时模块即可利用该恒温晶体振荡器的优越短期稳定性，以及铷钟的优异长期老化特性。

该恒温晶振还可以和全球导航卫星系统相位锁定，以保持精确的长期稳定性，同时也不会牺牲其达到世界顶尖级别的短期稳定性。

关于更多产品价格和货期等相关信息，请联系 DEI 当地代表处或发邮件至 Sales@DynamicEng.com 进行咨询。

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

OCXO5050Z-10MHz-A-V
Ultra Low Noise Sine Wave OCXO

Features and Benefits

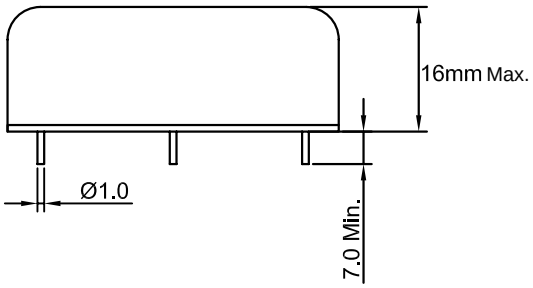
High stability vs. temperature (up to ±0.2 ppb)
Wide operating temperature range: -40°C to +85°C
-161 dBc/Hz at 1 KHz phase noise
-108 dBc/Hz at 1 Hz phase noise
Allan deviation (ADEV) less than $6E^{-13}$

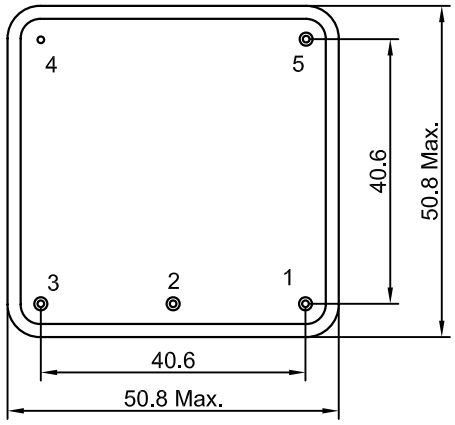
Typical Applications

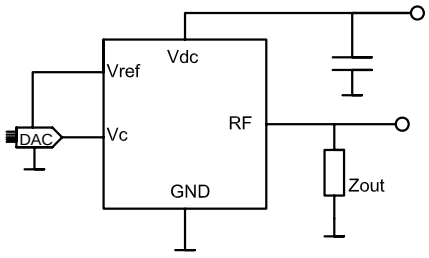
Base Station
LTE 4G & 3G
Local clock reference of timing module

Mechanical Drawing & Pin Connections

Drawing No:MD170010-1







Zout=50 Ohm
Connection Circuit

Pin Connections:

Pin#	Symbol	Function
1	Vc	Control Voltage
2	Vref	Reference Output
3	RF Out	RF Output
4	GND	Ground
5	Vdc	Supply Voltage

Unit : mm
1mm=0.0394inch

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

OCXO5050Z-10MHz-A-V
Ultra Low Noise Sine Wave OCXO

Specifications

OCXO Specification	Sym	Condition	Value Min.	Value Typ.	Value Max.	Unit	Note
Frequency Range	F_0			10		MHz	
RF Output							
Output Waveform				Sine wave			
Load		±5%		50		Ohm	
Output Level			+8.5	+9.0	+9.5	dBm	>300mv(rms)@+5V supply voltage
Harmonics			30			dBc	Optional: >50 dBc
Power Supply							
Voltage	Vdc		11.4	12.0	12.6	V	Optional: +5V
Current Consumption		Steady State @+25°C			250	mA	<500mA@+5V supply voltage
Warm-up Time		<20ppb @+25°C			3.0	Min.	
Reference Voltage	Vref			5.0		V	4.5V@+5V supply voltage
Frequency Control							
Control Voltage	Vc		0		5	V	0 to 4.5V @+5V supply voltage
Frequency Pulling Range			±0.4			ppm	
Frequency Stability							
Vs. Operating Temperature Range		From -40°C to +85°C			±0.2	ppb	
Vs. Supply Voltage Change		+/-5% change			±0.5	ppb	Optional: ±0.2ppb
Vs. Load Change		+/-5% change			±0.5	ppb	Optional: ±0.2ppb
Short Term Stability (Allan deviation)		Per 1sec.				$6x10^{-13}$	With one second duration between time interval measurements
Aging First Year		After 30 Days Operation			±20	ppb	
Phase Noise							
Phase Noise		@1Hz			-108	dBc/Hz	
		@10Hz			-137	dBc/Hz	
		@100Hz			-157	dBc/Hz	
		@1KHz			-161	dBc/Hz	
		@10KHz			-162	dBc/Hz	
Environmental							
Operating Temperature Range	-40°C to +85°C						
Storage Temperature Range	-55°C to +85°C						
Vibration	Acceleration: 5g; 10 Hz up to 200 Hz and down to 10 Hz; all 3 axes						
Shock	75 g, half-sine, 3 ms						