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

OCXO3306C-100MHz-A-V
100MHz low power low profile OCXO

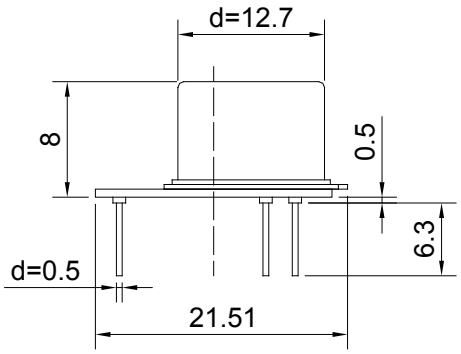
Features and Benefits
8mm low profile design
Custom 100 MHz frequency with internal heating resonator (IHR)
Less than ±30 ppb total stability over -20°C to +70°C
Less than ±2 ppb per day aging
Low power consumption at 0.15W at +25°C
Better than -168dBc/Hz floor @ 100 MHz
60 seconds fast warm-up time

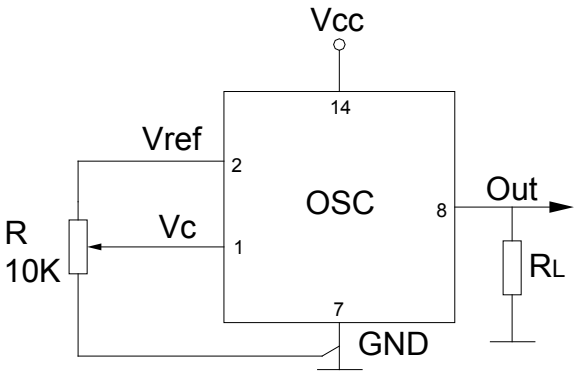
Typical Applications
100 MHz Frequency Source Reference for mobile test equipment
Synthesizers
Wireless Communications
Battery Powered Application

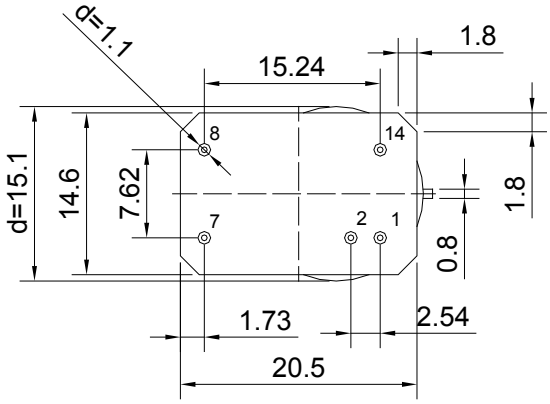
Description
A sophisticated and highly stable low profile oven controlled oscillators with the latest internal heating resonator (IHR) topologies.

Mechanical Drawing & Pin Connections

Drawing No: **MD140029-1**







Pin	Signal
1	Electrical tuning
2	Reference voltage
7	GND
8	RF Out
14	+V Supply

Unit : mm

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Specifications

General Specifications							
Parameter	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max		
Nominal Frequency	f_0			100		MHz	
Frequency Control							
Control Voltage Range	V_c	V_{CC} = 5V	0		4.2	V	
Tuning Range			±0.5	±1.0		ppm	
Tuning Slope				Positive			
Reference voltage	V_{ref}	V_{CC} = 5V	4.1	4.2	4.3	V	
Frequency Stability							
Vs. temperature		-20°C to +70°C Ref +25°C	-30		+30	ppb	
Vs. acceleration		Worst direction			±1	ppb/G	
Vs. supply voltage		Ref V_{cc} typ.		±2		ppb	
RF output							
Wave form				HCMOS			
H-Level Voltage	V_R	V_{CC} = 5V	3.8			V	
L-Level Voltage	V_L				0.4	V	
Duty Cycle			45		55	%	
Rise / Fall Time					3	ns	
Load			10		 5	kOhm pF	
Sub-Harmonics level				none			
Power Supply							
Voltage	V_{CC}		4.75	5.0	5.25	V	
Power Consumption		Warm-up state Steady state, +25°C		0.70 0.15		W W	
Warm-up time	t_{up}	to Δf/f = 1e-7 at +25°C		60		s	Reference to frequency after 15 mins
SSB Phase Noise		1 Hz				dBc/Hz	
		10 Hz	-95	-90			
		100 Hz	-125	-120			
		1 kHz	-153	-150			
		10 kHz	-165	-162			
		100 kHz	-168	-165			
Aging Per day		After 30 days of operation			±2	ppb	
Aging First year					±200	ppb	

Maximum ratings, environmental, mechanical conditions.	
Operating temperature range	-20°C to +70°C
Storage temperature range	-60°C to +90°C
Humidity	Non-condensing 95%
Mechanical Shock	Per MIL-STD-202, 30G, half sine pulse, 11ms
Vibration	Per MIL-STD-202, 5G swept sine 10 to 2000 Hz
Soldering Conditions	Hand solder only – not reflow compatible 260°C 10s (on pins)
Washing Conditions	Washing with water or alcohol based detergent allowed only with final enough drying stage

Please contact Dynamic Engineers Inc. for further details.