

Dynamic Engineers Inc.

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

OCXO3312AW-100MHz-A-V Š[,∱[,^¦Á@t@ÁrcæàậāĉÁ[,∱;@ee^Ё;[ār^Á;ājāæcč¦^ UÔÝUÁÁ

Features and Benefits

Frequency range: 100MHz Supply voltage: 5.0V Steady power: 180mW Typ Output waveform: Sinewave Frequency stability vs. operating temperature: ±100ppb Aging: ±0.2ppm per year Phase noise@100KHz: -165dBc/Hz Operating temperature: -55°C to +85°C Size: 16x15x9.5mm

Typical Applications

Portable Wireless Communications Mobile Test equipment Synthesizers Battery Powered Application

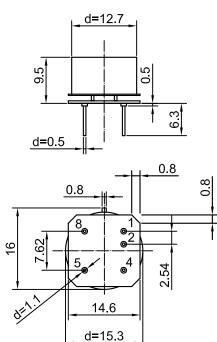
Description

OCXO3312AW-100MHz-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.

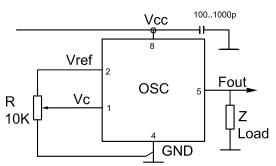
Mechanical Drawing & Pin Connections

Drawing No: MD170001-3

Physical dimensions



Schematic connections



Pin	Signal
1	Electrical tuning
2	Reference voltage
4	GND
5	RF Out
8	+V Supply

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 Specification	Sym	Condition		Value		Unit	Note	
			Min.	Тур. 100	Max.	MHz		
Operational Frequency	F _{nom}			100		IVITIZ		
RF Output				Sino				
Signal Waveform			7.0	Sinewave				
Harmonics			7.0		-25	dBm dBc		
Load				50	-25	ohm		
				50		onm		
Power Supply			4.4	4.0	4.0	V		
Reference Voltage VREF Output			4.1 4.75	4.2	4.3 5.25	V		
Supply Voltage	Vs	014 4 4 4 4 4 4 4 4 4 4 5 2 0 5 2 0	4.75	5.0	5.25	mW		
Power Consumption		Steady state, +25°C		180	4000			
		Warm-up			1200	mW		
Frequency Adjustment Range	-							
Electronic Frequency Control (EFC)		Compliance with 10 years aging	±0.3	±1.0		ppm		
EFC voltage	Vc		0		4.2	V		
EFC Slope	positive							
Frequency Stability								
Versus Operating Temperature Range		-55°C to +85°C			±100	ppb	Air flow 0.5m/s max	
Initial Tolerance @+25°C		V _c @ VREF / 2		±0.1		ppm		
Versus supply voltage	Vs	Ref Vcc typ		±2.0		ppb		
Retrace		24h work after 24h off			±10	ppb		
Aging Per Day		After 30 days of			±2.0	ppb		
Aging 1 st Year		operation			±0.2	ppm		
0.0		10Hz		-90		dBc		
		100Hz		-120		dBc		
Phase noise		1kHz		-145		dBc		
		10kHz		-153		dBc		
		100kHz		-165		dBc		
Environmental, Mechanical Conditions				·				
Operating temperature range	-55°C to +	-85°C						
Storage temperature range	-60°C to +85°C							
Humidity	Non-condensing 95%							
Mechanical shock	Per MIL-STD-202, 30G half sine pulse, 11ms							
Vibration	Per MIL-STD-202, 10G swept sine 0 to 2000 Hz							
Soldering conditions	Hand solder only – not reflow compatible 260°C 10s (on pins)							
Washing conditions	Washing	with water or alcohol-bas	sed deter	gent allowed	only with fir	nal enough	n drying stage	