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

OCXO2526S-100MHz_series
Ultra Low Noise/Low G-Sensitivity OCXO

Features and Benefits

100MHz Frequency
5V Supply voltage
Sinewave Output waveform
±50ppb Stability Vs -20C --+70C
25.78x25.78x12.7mm Size
-162dBc/Hz @1KHz phase noise value

Typical Applications

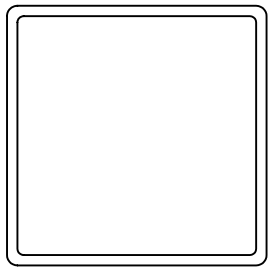
Instrument Reference
Microwave Communication
Clock Reference for Microwave Signal Source
Test & Measurement
Telecom Systems
Radar Systems
Medical (MRT)

Description

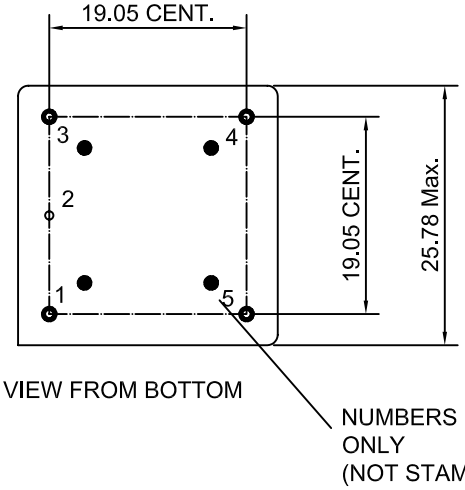
OCXO2526S-100MHz_series is a 100.000 MHz high performance (VC)OCXO offering Ultra Low Phase Noise(ULPN), low G sensitivity(LGS) and tight frequency stability down to ±50ppb (-20ºC to +70ºC). The part comes in a small hermetically sealed through hole package which makes it suitable for humid environmental conditions.

Mechanical Drawing & Pin Connections

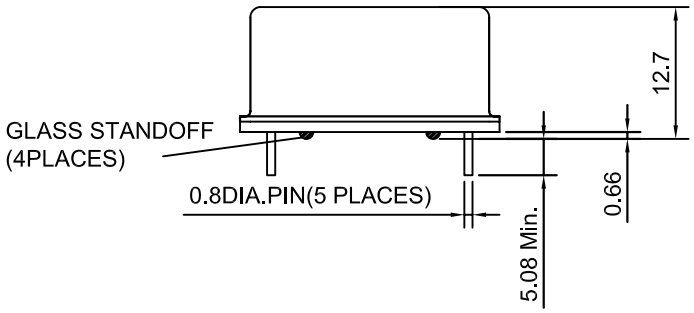
Drawing No: MD160042-1



VIEW FROM TOP



VIEW FROM BOTTOM



Pin	Signal
1	R.F. OUTPUT
2	GND
3	Control Votage
4	Not Connected
5	Supply Voltage

Unit in mm
1mm = 0.039 inches

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Specifications (Test conditions: VDC = +5 V; VCO = +5 V; at +25 ± 3°C unless otherwise identified)

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F_{nom}			100		MHz	
RF Output							
Signal Waveform				Sinewave			
Load	R_L	±10%		50		ohm	
Level			+15			dBm	
Harmonics					-30	dBc	
Spurious					-100	dBc	
Power Supply							
Supply Voltage	V_S		4.75	5.0	5.25	V	
Warm-up Time	T_{up}	@ +25 ±1°C, referenced to 1 hour		5		min	Under ±50ppb
Power Consumption		Steady state @+25°C			2.1	W	power
		Warm-up			950	mA	current
Frequency Adjustment Range							
Electronic Frequency Control (EFC)		Refer to Frequency at nominal center voltage	±2.5			ppm	
EFC voltage	V_c		0		10	V	
Center Voltage				5		V	
Linearity			-10		+10	%	
EFC Slope				positive			
Frequency Stability							
Versus Operating Temperature Range		-20°C to +70°C		±50		ppb	See ordering information
Initial Tolerance @+25°C after turn on 30min		Vco=+5V	-0.3		+0.3	ppm	
Versus supply voltage	V_S	±5%change	-5		+5	ppb	
Versus Load		±10%change	-5		+5	ppb	
Aging Per Day				±5		ppb	
Aging 1st Year				±200		ppb	
Aging 15th Year				±2		ppm	
Allan Variance		1s			0.05	ppb	
G-Sensitivity (each axis)					1	ppb/G	
SSB Phase noise(Max)				Option A	Option B		
		10Hz		-100	-105	dBc	
		100Hz		-130	-135	dBc	
		1kHz		-157	-162	dBc	
		10kHz		-180	-180	dBc	
		100kHz		-185	-185	dBc	
		1MHz		-185	-185	dBc	
Environmental,Mechanical Conditions							
Operating temperature range	See ordering information						
Storage temperature range	-55°C to 105°C						
Humidity	MIL-STD-202, Method 103 Test Condition A; 95% RH @ +40°C,non-condensing,240 hours						
Shock (non-operating)	Per MIL-STD-202, Method 213, ,test condition J; 30G,half sine,11mS						
Vibration (non-operating)	Per MIL-STD-202, Method 201;0.06'' total p-p,10 to 55Hz						

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Ordering Information

OCXO2526S	-	100MHz	-	01	02	03

Group

For example, OCXO2526S-100MHz-1-1-2 denotes the OCXO has the following specifications:

Temperature Range: -20°C to +70°C
Stability Over Temperature: ±100ppb
Phase noise: B

01	**Temperature Range**
Code	Specification
1	-20°C to +70°C
2	-40°C to +85°C

02	**Frequency Stability**
Code	Specification
1	±100 ppb
2	±50 ppb
3	±500 ppb
4	±200 ppb

03	**Phase noise**
Code	Specification
1	A
2	B

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