

Dynamic Engineers Inc.

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

Features and Benefits

Frequency 100.00000 MHz +7 dBm min. ultra low noise sine wave output +/- 100.0 ppb max. from -30°C to +70°C +/- 1 ppm adjust min. from -0.0V to 10.0V -125 dBc/Hz or BETTER @ 100 Hz offset -155 dBc/Hz or BETTER @ 1000 Hz offset

Typical Applications

Ref. for microwave comm. System Signal Analyzer Reference for internal synthesizers SATCOM Systems

Description

The OCXO2525L-100MHz-B-V family offers a specially designed vibration isolated package with a 100 MHz SC-cut crystal impedance matched to the oscillator and amplifier circuits to deliver consistent world class phase noise on all production shipments.

Mechanical Drawing & Pin Connections

Drawing No:MD150074-1



Ø 0.8



Pin connections

	А	B	C			
<u>\</u> 1	PIN #	Symbol	Function			
2	1	RF OUT	OUT RF Output			
3	2	GND	Ground			
4	3	Vc	Control Voltage(EFC)			
5	4	VREF	Reference Voltage			
6	5	Vs	Supply Voltage			

Unit = mm

C7 LC&) & @%\$\$A < n!6 !J High Stability OCXO with Sine Wave Output

Dynamic Engineers, Inc.

5.5min

Rev.1

0.8MAX

Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside; such as data tables and graphs without notification to potential customers who may have earlier revisions in their possession.



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Specifications

Specification Strict Network Min. Typ. Max. Unit of the second secon	OCXO Specification		Svm	Condition	Value			Unit	Note
Nommal Frequency Fe 100.00 MHz Signal waveform L Sine wave Image: Sine wave					Min.	Тур.	Max.		
RF Output L Sine wave One Load RL +/.5% 50 Ohm Output Level -30 dBm dBm Harmonics -30 dBc	Nominal Frequency		F ₀			100.000		MHz	
Signal waveform L Sine wave Constraint Load RL +/.5% 50 Ohm Output Level 1 4/.5% 30 Ohm Output Level 1 -3.00 dBr dBr Harmonics 1 0.0 V V Sub-harmonics 10.0 V V V Power Supply Vs 11.4 12.0 12.6 V Power Consumption Steady-state@VSC 150 mA 14.00 MA Warm-up Time Steady-state@VSC 3 5 min 150 mA EFC control Voltage Vc 0 5.0 10.0 V 14.00 <td>RF Output</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	RF Output								
Load RL +/-5% 50 Ohm Output Level +7 0 dBm Harmonics	Signal waveform		L			Sine wave	-		
Output Level Image: Constraint of the second	Load		R∟	+/-5%		50		Ohm	
Harmonics	Output Level				+7			dBm	
Sub-harmonics -90 dBc Reference voltage VREF output 10.0 V Power Supply 11.4 12.0 12.6 V Power Consumption Vs 11.4 12.0 12.6 V Power Consumption Vs 11.4 12.0 12.6 V Power Consumption Vs Steady-state@+25°C 150 mA MA Warm-up Time To∆ff(r4/.0.1ppm, at 25°C Ref. to frequency after 15min. 3 5 min Frequency Control Ismin. 150 To∆ff(r4/.0.1ppm, at 25°C Ref. to frequency after 15min. ppm Electronic Frequency Control (EFC) Ismin. 4/-1 ppm Ismin EFC control Voltage Vc 0 5.0 10.0 V EFC slope(A 1 ∆ Vc) Ismin positive Ismin Ismin Positive Frequency Stability Ismin 100 Vs Positive Ismin Initial tolerance @ +25°C Istady state +/-100 +/-100 pbb </td <td colspan="2">Harmonics</td> <td></td> <td></td> <td></td> <td></td> <td>-30</td> <td>dBc</td> <td></td>	Harmonics						-30	dBc	
Reference voltage VREF output Image: state of the state	Sub-harmonics	Sub-harmonics					-90	dBc	
Voltage Vs I1.4 12.0 12.6 V Power Consumption Steady-state@+25°C 11.4 15.0 mA mA Power Consumption To ∆ffr<+/0.1ppm, at 25°C 350 mA min Warm-up Time To ∆ffr<+/0.1ppm, at 25°C 3 5 min Frequency Control Electronic Frequency Control (EFC) +//1 ppm EFC control Voltage Vc 0 5.0 10.0 V EFC control Voltage Vc 0 5.0 10.0 V EFC slope(∆ f/ ∆ Vc) I	Reference voltag	Reference voltage VREF output				10.0		V	
Voltage Vs 11.4 12.0 12.6 V Power Consumption Steady-state@+25°C 150 mA Warm-up 330 mA Warm-up Time To∆fff<+/to1.0pm, at 25°C 3 5 min Frequency Control Eff to frequency after 15min. 3 5 min Frequency Control (EFC) Kef to frequency after 15min. 0 5.0 10.0 V EFC Control Voltage Vc 0 5.0 10.0 V	Power Supply								
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Warm-up Time Image: Second seco	Power Consump	PowerConsumption		Warm-up			350	mA	
Frequency Control with the second seco	Warm-up Time			To∆f/f<+/-0.1ppm, at 25°C Ref. to frequency after 15min		3	5	min	
Electronic Frequency Control (EFC) +/-1 ppm EFC Control Voltage Vc 0 5.0 10.0 V EFC Slope(∆f/∆VC) 0 0 5.0 10.0 V EFC input impedance 100 positive KOhm Frequency Stability 100 KOhm Initial tolerance @ +25°C +/-100 +/-300 ppb Vs. Operating Temperature Range Steady state +/-10 ppb Vs. load change (pulling) RL+/-5% +/-10 ppb G -sensitivity RL+/-5% +/-2 ppb Aging Per Day After 30 days of operation +/-20 ppb Phase Noise @10Hz -125 dBc/Hz @10Hz 0.15 160 dBc/Hz @10Hz -125 dBc/Hz dBc/Hz @10Hz -165 -165 dBc/Hz	Frequency Cont	trol		Torrini.				1	
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	Operating Tempe	erature Range	-30°C	to +70°C					