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

OCXO3627CR-ULG
Software Compensated ULTRA-LOW-G OCXO

Features and Benefits

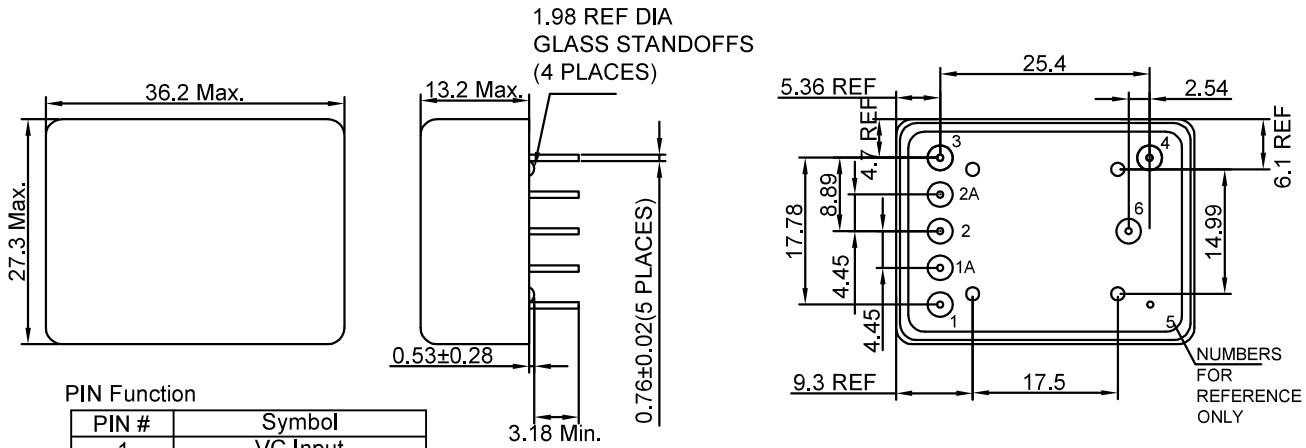
Frequency range: 1-60MHz
Supply voltage: 5.0V
Steady state: 2.0W Max
Output waveform: LVCMOS
Frequency stability vs. operating temperature: ±0.25ppb
Aging: ±50ppb 20 years
Phase noise@10KHz: -154dBc/Hz
Operating temperature: -40°C to +105°C
Size:36.2x27.3x13.2mm

Typical Applications

GPS/GNSS
Naval Vessels
Commercial and Military Aircraft
Smart Munitions
Ground Vehicles
Industrial Construction Equipment
Autonomous Agricultural Vehicles

Mechanical Drawing & Pin Connections

Drawing No: MD230020-1



PIN Function

PIN #	Symbol
1	VC Input
1A	Factory Use Only
2	VREF or N.C.
2A	Factory Use Only
3	+VDC
4	Output
5	GND
6	Oven Ready

Unit in mm
1mm = 0.0394 inches

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency	F_{nom}		1		60	MHz	
RF Output							
Signal Waveform				LVCMOS			
Load				15		pF	
Output High	V_{OH}			3.3		V	
Output Low	V_{OL}			0.1		V	
Duty Cycle			45	50	55	%	
Rise/Fall Time		Measured between 10% and 90%			6	nS	
Power Supply							
Supply Voltage	V_{cc}		4.75	5.0	5.25	V	
Warm-up Time		±10ppb of 30 minute frequency@25°C			5	min	
Start-up time		To reach 90 % of Final Amplitude and ±150 ppb of 30-Minute Frequency.			100	mS	
Power Consumption		Steady state, +25°C			2.0	W	
		Warm-up			5.25	W	
Frequency Adjustment Range							
Oven Ready (PIN 6)		Open collector-10k ext pull up to +5V					
Oven not stabilized			2.4			V	
Oven stabilized					0.5	V	
Voltage range			0		3.3	V	
Pullability							See ordering information
Input Z				50		kohm	
Linearity					1	%	
Frequency Stability							
Versus Operating Temperature Range						ppb	See ordering information
Calibration Tolerance		At time of shipment			±5.0	ppb	
Versus supply voltage		5% change			±0.1	ppb	
Versus load		5% change			±0.25	ppb	
Aging							See ordering information
SSB Phase noise (10MHz)		1Hz offset		-80	-74	dBc/Hz	
		10Hz offset		-108	-102	dBc/Hz	
		100Hz offset		-127	-123	dBc/Hz	
		1KHz offset		-148	-145	dBc/Hz	
		10KHz offset		-154	-150	dBc/Hz	
		100KHz offset		-154	-150	dBc/Hz	
Environmental, Mechanical Conditions							
Shock per MIL-STD-202 (Survive)	Method 213, Condition C						
Vibration per MIL-STD-202 (Survive)	Method 204, Condition A						
Operational temperature range	See ordering information						

Ordering Information

OCXO3627CR-ULG	-	12.3MHz	-	x	x	x	x	x	x
Group				01	02	03	04	05	06

For example, OCXO3627CR-ULG -12.3MHz-1-1-2-1-2-1 denotes the OCXO has the following specifications:

Temperature Range: 0°C to +50°C
Stability Over Temperature: ±10ppb
Pullability: ±12.5ppm

ACCEL Sensitivity: 1.00ppb/g
Aging per day: ±0.75ppb
Aging per 20 years: ±2000ppb

01	Temperature Range
Code	Specification
1	0°C to +50°C
2	-20°C to +70°C
3	-40°C to +85°C
4	-40°C to +105°C

02	Frequency Stability
Code	Spec
1	±10ppb
2	±5.0ppb
3	±1.0ppb
4	±0.5ppb
5	±0.25ppb

03	Pullability
Code	Specification
1	±6.25ppm
2	±12.5ppm
3	±25ppm
4	±50ppm
5	±100ppm
6	±200ppm
7	±400ppm
8	±1000ppm

04	ACCEL Sensitivity
Code	Spec
1	1.00ppb/g
2	0.50ppb/g
3	0.25ppb/g
4	0.10ppb/g
5	0.05ppb/g
6	0.03ppb/g
7	0.01ppb/g

05	Aging per day
Code	Spec
1	±1ppb
2	±0.75ppb
3	±0.5ppb
4	±0.3ppb

06	Aging per 20 years
Code	Spec
1	±2000ppb
2	±1000ppb
3	±500ppb
4	±50ppb