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

OCXO2525BM-40MHz-A-V
25.8x25.8x12.7mm 40MHz OCXO

Features and Benefits

Frequency range: 40MHz
Supply voltage: 3.3V
Steady state: 1.5W Max
Output waveform: HCMOS
Frequency stability vs. operating temperature: +-5ppb
Aging: +-200ppb per year
Phase noise@10KHz: -150dBc/Hz
Operating temperature: 0°C to +70°C
Size:25.8x25.8x12.7mm

Typical Applications

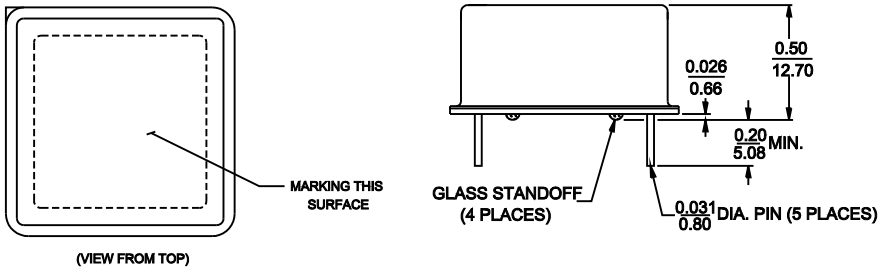
Small Cell, Portable Telecommunication Device
Test and Instrumentation
Synthesizer, Digital switch, Reference Timing Circuit
Packet Timing Protocol ATCOM System

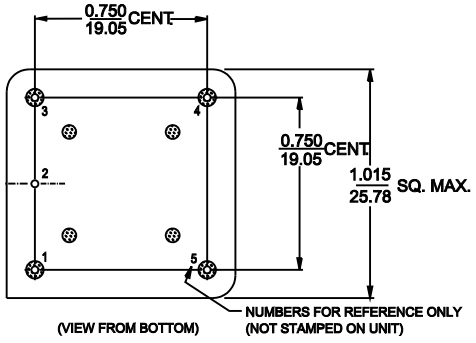
Description

OCXO2525BM-40MHz-A-V is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

Mechanical Drawing & Pin Connections

Drawing No: MD210013-1





PIN CONNECTIONS	
PIN	FUNCTION
1	R. F. OUTPUT
2	0 VOLTS & CASE
3 (See Note 1)	VCO INPUT or NOT CONNECTED
4 (See Note 1)	REFERENCE VOLTAGE or NOT CONNECTED or OVEN MONITOR
5	+VDC

Note 1. If the specification does not specify parameters for either PIN3 or PIN4 then that respective PIN is NOT internally CONNECTED.

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F_{nom}			40		MHz	
RF Output							
Signal Waveform				HCMOS			
Load	R_L			15pF			
High Level			+2.4			V	
Low Level					+0.4	V	
Duty Cycle		@+1.4V	45	50	55	%	
Rise/Fall time		10% to 90%			6	ns	
Sub-harmonics					-30	dBc	
Power Supply							
Supply Voltage	V_S		3.135	3.3	3.465	V	
Steady state		+25°C			1.5	W	
Current		Warm-up			1000	mA	
Frequency Stability							
Versus Operating Temperature Range		0℃～+70℃ ref to +25℃	-5		+5	ppb	
Initial Frequency Accuracy		@ +25 ±1℃ after turn on power 15 ±1 minutes 90 days following date code VCO Input voltage @ Center Voltage ± 0.001V	-0.2		+0.2	ppm	
Versus supply voltage		±5% change	-10		+10	ppb	
Versus Load		±5% change	-10		+10	ppb	
Aging		Per day, at time of shipment	-2		+2	ppb	
Aging Per Day		after 30 days	-2		+2	ppb	
Aging 1st Year			-200		+200	ppb	
Aging 10 Years			-0.8		+0.8	ppm	
Warm-up		In 5 minutes@25±1°C	-0.1		+0.1	ppm	Reference to 1 hour
Phase Noise		100Hz		-130		dBc/Hz	
		1kHz		-140		dBc/Hz	
		10kHz		-150		dBc/Hz	
Environmental,Mechanical Conditions							
Operating temperature range	0°C to 70°C						
Storage temperature range	-40°C to 85°C						
Humidity	MIL-STD-202, method 103, test condition B; 95% RH@+40°C, non-condensing,96 hours						
Vibration (non-operating)	MIL-STD-202, method 201; 0.06'' total p-p, 10-55Hz						
Shock (non-operating)	MIL-STD-202, method 213, test condition J; 30g,11ms, half-sine						