



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

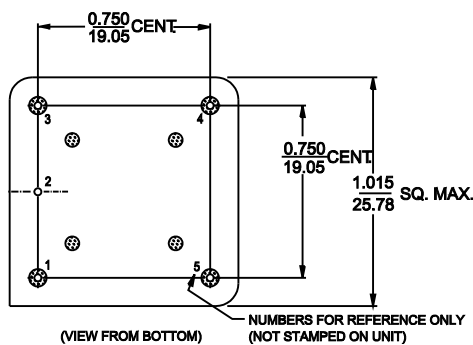
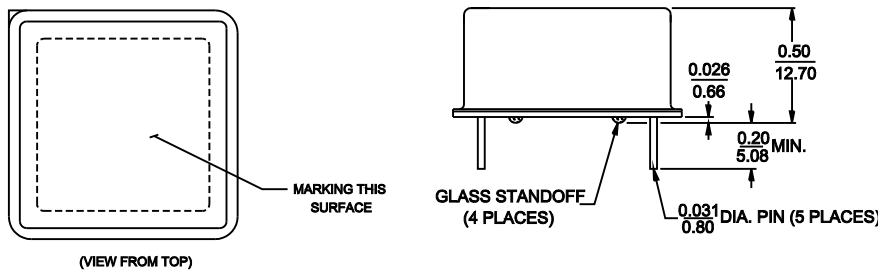
- Small Cell, Portable Telecommunication Device
- Test and Instrumentation
- Synthesizer, Digital switch, Reference Timing Circuit
- Packet Timing Protocol ATCOM System

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.



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°C~+70°C ref to +25°C	-5		+5	ppb	
Initial Frequency Accuracy		@ +25 ±1°C 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 1 st 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						