



Features and Benefits

Frequency range: 10MHz
Supply voltage: 5.0V
Steady current: 260mA Max.
Output waveform: Rectangular
Frequency stability vs. operating temperature: ± 3 ppb to ± 10 ppb
Aging: ± 0.5 ppb/day
Phase noise@100KHz: -155dBc/Hz
Operating temperature: -40°C to +85°C
Size: 36.3x27.18x12.7mm

Typical Applications

Reference Timing Circuit
Instrument Reference
Synthesizer
Telecommunication Device

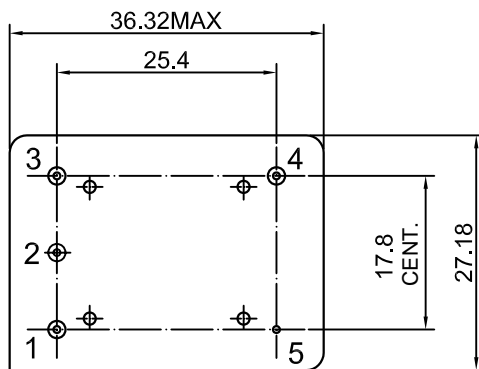
Description

OCXO3627BM-FD5-10MHz_LVTTL is designed for applications where is good frequency stability and low aging is required. It has both excellent temperature stability and aging. These characteristics make it an excellent choice for all kinds of communication applications.

Mechanical Drawing & Pin Connections

Drawing No: MD150083-6

Bottom View



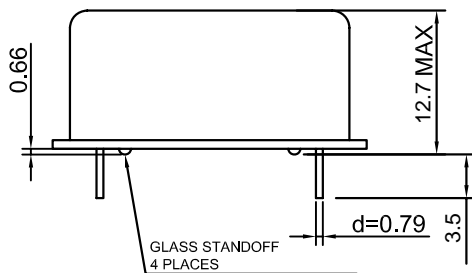
Pin Connections:

Pin	Function
1	Control Voltage or N.C.
2	Reference Voltage or N.C.
3	Supply Voltage
4	RF Output
5	Ground

Unit in mm

1mm = 0.0394 inches

Side View





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency				10		MHz	
RF Output							
Waveform			Rectangular				
Level			LVTTL				
High Level			+2.6	+3.3		V	
Low Level					+0.4	V	
Load				15		pF	
Duty Cycle		@+1.65V	45	50	55	%	
Rise/Fall time		10% to 90%			6	ns	
Spurious					-60	dBc	
Electrical Frequency Adjustment (Only for Control Voltage Version) (Optional Function)							
Control Voltage		Optional, Refer to Ordering Information	0		5.0	V	
			0		4.0	V	
Tuning Range		VCO @ Min. Voltage			-0.5	ppm	Referenced to frequency at nominal Center Voltage
		VCO @ Max. Voltage	+0.5			ppm	
Slope			positive				
Center Voltage		Optional, Refer to Ordering Information		2.5		V	
				2.0		V	
Linearity			-10		+10	%	
Input Impedance			100			Kohm	
Reference Voltage (Optional Function. Refer to Ordering Information.)							
Voltage			3.8	4.0	4.2	V	
Load			9			kohm	
Power Supply							
Supply Voltage	V _s		4.75	5.0	5.25	V	
Steady state		+25°C			1.3	W	
Current		@ Turn on			800	mA	
Frequency Stability							
Initial Frequency Accuracy		@ +25 ±1°C; after turn on power 15 ±1 minutes. <=90 days following date code.			±0.1	ppm	VCO Input voltage @ Center Voltage ±0.001V
Versus Temperature		ref to +25°C	Pls see Ordering Information			ppb	
Versus Supply Voltage		±5% change			±0.5	ppb	
Versus Load		±5% change			±0.5	ppb	
Short Term					0.05	ppb/s	Root Allan variance
Aging Per Day		after 30 days			±0.5	ppb	
Aging 1 st Year					±50	ppb	
Aging 10 Years					±0.3	ppm	
Warm-up		In 10 minutes @25±1°C			±10	ppb	Reference to 1 hour
Phase Noise		1Hz		-95	-90	dBc/Hz	
		10Hz		-125	-120	dBc/Hz	
		100Hz		-140	-135	dBc/Hz	
		1kHz		-148	-145	dBc/Hz	
		10kHz		-156	-155	dBc/Hz	
		100kHz		-158	-155	dBc/Hz	



Environmental, Mechanical Conditions	
Operating temperature range	Refer to 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
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

Ordering Information

OCXO3627BM-FD5-10MHz_LVTTL	-	01	02	03	04
Group		Code			

For example, OCXO3627BM-FD5-10MHz_LVTTL-1-1-2-1 denotes the OCXO has the following specifications:

Stability Over Temperature: ±3ppb
 Temperature Range: -30°C to +70°C
 Control Voltage: 2.0V
 Reference Voltage: N/A (No reference voltage)

01	Frequency Stability
Code	Specification
1	±3 PPB
2	±5 PPB
3	±10 PPB

02	Temperature Range
Code	Specification
1	-30°C to +70°C
2	-40°C to +85°C

03	Control Voltage
Code	Specification
1	2.5 V
2	2.0 V

04	Reference Voltage
Code	Specification
1	N/A
2	4.0 V