



Features and Benefits

- 100MHz Frequency
- 5V Supply voltage
- Sinewave Output waveform
- ±50ppb Stability Vs -20C ---+70C
- 36.32x27.18x16mm Size
- 162dBc/Hz @1KHz phase noise value

Typical Applications

- Instrument Reference
- Microwave Communication
- Clock Reference for Microwave Signal Source
- Test & Measurement
- Telecom Systems
- Radar Systems
- Medical (MRT)

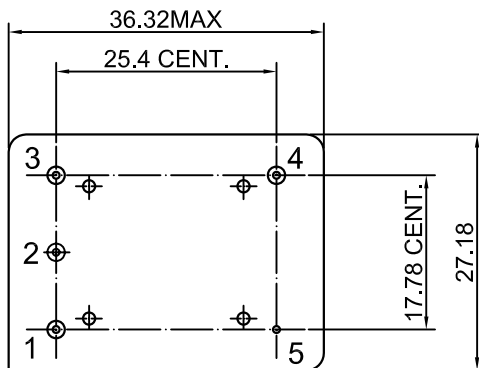
Description

OCXO3628S-100MHz_series is a 100.000 MHz high performance (VC)OCXO offering Ultra Low Phase Noise(ULPN), low G sensitivity(LGS) and tight frequency stability down to ±50ppb(-20°C to +70°C). The part comes in a small hermetically sealed through hole package which makes it suitable for humid environmental conditions.

Mechanical Drawing & Pin Connections

Drawing No: MD1500, &-&

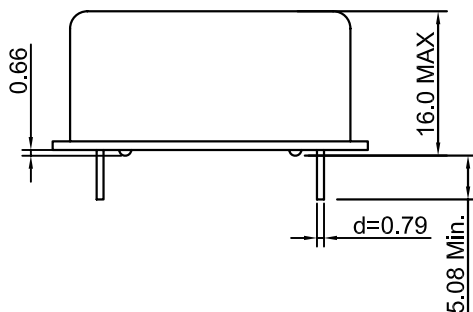
Bottom View



Pin Connections:

Pin	Symbol	Function
1	Vc	Control Voltage
2	N.C.	Not Connected
3	Vs	Supply Voltage
4	RF OUT	RF Output
5	GND	Ground

Side View



Unit in mm
1mm = 0.0394 inches



Specifications (Test conditions: VDC = +5 V; VCO = +5 V; at +25 ± 3°C unless otherwise identified)

Oscillator Specification	Sym	Condition	Value			Unit	Note	
			Min.	Typ.	Max.			
Operational Frequency	F _{nom}			100		MHz		
RF Output								
Signal Waveform			Sinewave					
Load	R _L	±10%	50			ohm		
Level			+15			dBm		
Harmonics					-30	dBc		
Spurious					-100	dBc		
Power Supply								
Supply Voltage	V _s		4.75	5.0	5.25	V		
Warm-up Time	T _{up}	@ +25 ±1°C, referenced to 1 hour		5		min	Under ±50ppb	
Power Consumption		Steady state @+25°C			2.1	W	power	
		Warm-up			950	mA	current	
Frequency Adjustment Range								
Electronic Frequency Control (EFC)		Refer to Frequency at nominal center voltage	±2.5			ppm		
EFC voltage	V _c		0		10	V		
Center Voltage				5		V		
Linearity			-10		+10	%		
EFC Slope			positive					
Frequency Stability								
Versus Operating Temperature Range		-20°C to +70°C		±50		ppb	See ordering information	
Initial Tolerance @+25°C after turn on 30min		V _{co} =+5V	-0.3		+0.3	ppm		
Versus supply voltage	V _s	±5%change	-5		+5	ppb		
Versus Load		±10%change	-5		+5	ppb		
Aging Per Day		After 30 days of continuous operation		±5		ppb		
Aging 1 st Year					±200		ppb	
Aging 15 th Year					±2		ppm	
Allan Variance		1s			0.05	ppb		
G-Sensitivity (each axis)					1	ppb/G		
SSB Phase noise(Max)				Option A	Option B			
		10Hz		-100	-105	dBc		
		100Hz		-130	-135	dBc		
		1kHz		-157	-162	dBc		
		10kHz		-180	-180	dBc		
		100kHz		-185	-185	dBc		
	1MHz		-185	-185	dBc			
Environmental, Mechanical Conditions								
Operating temperature range	See 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							
Shock (non-operating)	Per MIL-STD-202, Method 213, test condition J; 30G, half sine, 11ms							
Vibration (non-operating)	Per MIL-STD-202, Method 201; 0.06" total p-p, 10 to 55Hz							



Ordering Information

OCXO3628S	-	100MHz	-	01	02	03
-----------	---	--------	---	----	----	----

Group

For example, OCXO3628S-100MHz-1-1-2 denotes the OCXO has the following specifications:

Temperature Range: -20°C to +70°C
 Stability Over Temperature: ±100ppb
 Phase noise: B

01	Temperature Range
Code	Specification
1	-20°C to +70°C
2	-40°C to +85°C

02	Frequency Stability
Code	Specification
1	±100 ppb
2	±50 ppb
3	±500 ppb
4	±200 ppb

03	Phase noise
Code	Specification
1	A
2	B