



Features and Benefits

- 37.5MHz Frequency Range
- 5V, 12V Supply voltage
- Sinewave Output waveform
- Various Temperature Stability Available
- 36x27x16mm Size
- Better than 170dbc/Hz @ noise floor

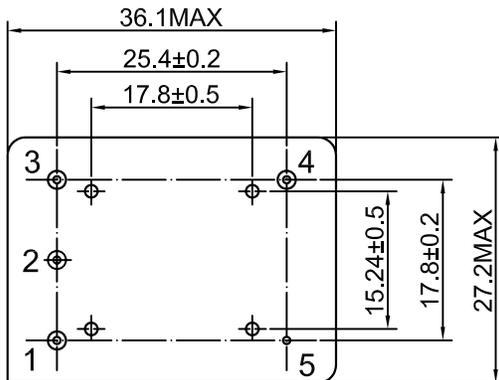
Typical Applications

- Cellular Base Stations
- Instrumentation
- Microwave Applications
- Stratum 3E clock systems
- Radar reference

Mechanical Drawing & Pin Connections

Drawing No: MD140062-1

Bottom View

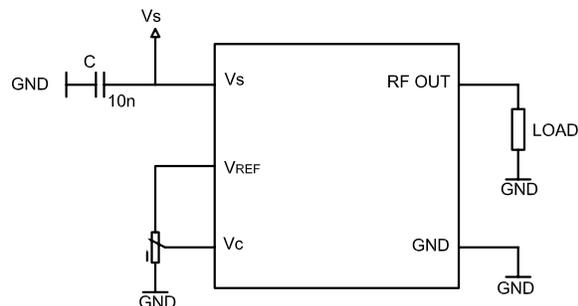
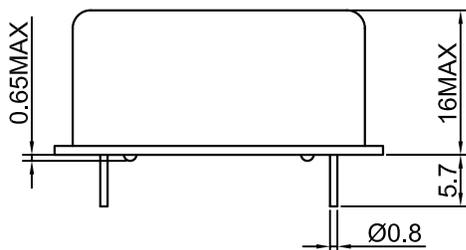


Pin Connections:

Pin	Symbol	Function
1	Vc	Control Voltage(EFC)
2	VREF	Reference Voltage
3	Vs	Supply Voltage
4	RF OUT	RF Output
5	GND	Ground

Unit : mm

Side View





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency	F _{nom}			37.5		MHz	
RF Output							
Signal Waveform			Sinewave				
Load	R _L	±10%	50			ohm	
Output power			+3			dBm	
Harmonics					-25	dBc	
Power Supply							
Reference Voltage	V _{ref}	V _{cc} =5V		4.0		V	
		V _{cc} =12V		5.0		V	
Supply Voltage	V _{cc}		11.4	12	12.6	V	
			4.75	5.0	5.25	V	
Warm-up Time	T _{up}	at +25°C to Δf/f=1e-7		3	5	min	
Power Consumption		Steady state, +25°C			250	mA	5V voltage
					150	mA	12V voltage
		Warm-up			600	mA	5V voltage
					350	mA	12V voltage
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±2		±5	ppm	AT Cut
			±0.8				SC Cut
EFC voltage	V _c		0	V _{ref} /2	V _{ref}	V	
EFC Slope			positive				
EFC Input Impedance			100			kΩ	
Frequency Stability							
Versus Operating Temperature Range						ppb	See ordering information
Initial Tolerance		+25°C, V _c =0.5*V _{ref}			±300	ppb	
Versus supply voltage		±5% change			±10	ppb	
Versus load		±10% change			±10	ppb	
Aging Per Day		after 30 days of operation			±10 for AT cut; ±2 for SC cut	ppb	
Aging 1 st Year				±300 for AT cut; ±50 for SC cut	±500 for AT cut; ±200 for SC cut	ppb	
SSB Phase noise			<170dbc/Hz @ noise floor				
Absolute Maximum Ratings							
Supply Voltage V _s		V _s to GND	-0.5		V _s +10%	V	
Control Voltage V _c		V _c to GND	-0.5		15	V	
Environmental, Mechanical Conditions							
Weight	25g						
Size	36.1x27.2x16 max. (mm)						
Packing	Palette						
Storage temperature range	-55°C to 125°C						



Environmental Conditions

Test	IEC 60068 Part...	IEC 60679-1 Clause	MIL-STD-202G Method	MIL-STD-810F Method	MIL-PRF-55310D Clause	Test conditions (IEC)
Sealing tests (if applicable)	2-17	5.6.2	112E		3.6.1.2	Gross leak: Test Qc Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20 2-58	5.6.3	208H 210F		3.6.52 3.6.48	Test Ta method 1 Test Td ₁ method 2 Test Td ₂ method 2
Shock	2-27	5.6.8	213B	516.4	3.6.40	Test Ea, 3 x per axis 100 g 6 ms half-sine pulse
Vibration sinusoidal	2-6	5.6.7.1	201A 204D	516.4-4	3.6.38.1 3.6.38.2	Test Fc, 30 min per axis, 1 oct / min 10 Hz – 55 Hz 0, 75 mm; 55 Hz – 2 kHz10g
Vibration random	2-64	5.6.7.3	214A	514.5	3.6.38.3 3.6.38.4	Test Fdb
Endurance tests - Aging - Extended aging		5.7.1 5.7.2	108A		4.8.35	30 days @ +85°C, OCXO @ +25°C 1000 h, 2000 h, 8000 h @ +85°C

Ordering Information

OCXO3628L	-	37.5MHz	-	x	x	x
Group				01	02	03

For example, DOCXO3628L-37.5MHz-1-5-2 denotes the OCXO has the following specifications:

Temperature Range: 0°C to +50°C

Stability Over Temperature: ±100ppb

Supply Voltage: 12V

01	Temperature Range
Code	Specification
1	0°C to +50°C
2	-10°C to +60°C
3	-20°C to +70°C
4	-30°C to +70°C
5	-40°C to +75°C
6	-40°C to +85°C
7	-55°C to +85°C

02	Frequency Stability
Code	Spec
1	±5ppb
2	±10ppb
3	±25ppb
4	±50ppb
5	±100ppb
6	±200ppb

03	Supply Voltage
Code	Specification
1	5V
2	12V