



Features and Benefits

- 37.5MHz Frequency Range
- 5V Supply voltage
- Sinewave Output waveform
- ±100ppb Temperature Stability
- 36x27x16mm Size
- Better than -150dbc/Hz @ 1KHz

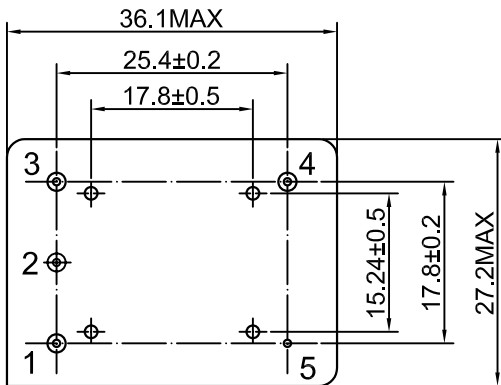
Typical Applications

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

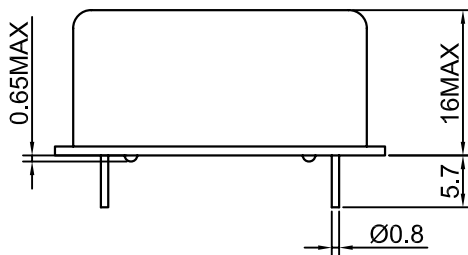
Mechanical Drawing & Pin Connections

Drawing No: MD140062-*

Bottom View



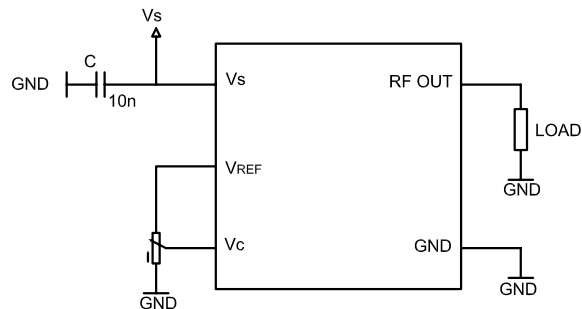
Side View



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





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency	F _{nom}			37.5			
RF Output							
Signal Waveform			Sinewave				
Load	R _L	±10%	50			ohm	
Output power			+3			dBm	
Harmonics					-25	dBc	
Reference Voltage							
Reference Voltage	V _{ref}			4.0		V	
Supply Voltage	V _{cc}		4.75	5	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			300	mA	
		Warm-up			600	mA	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±1			ppm	
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				±100	±200	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			±2	ppb	
Aging 1 st Year						±200	ppb
SSB Phase noise		@10Hz			-100	dBc/Hz	
		@100Hz			-130	dBc/Hz	
		@1KHz			-150	dBc/Hz	
		@10KHz			-160	dBc/Hz	
		@>=100KHz			-170	dBc/Hz	
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						
Operation temperature range	-20°C to 70°C						
Storage temperature range	-55°C to 105°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	2-20	5.6.3	208H		3.6.52	Test Ta method 1
Resistance to soldering heat	2-58		210F		3.6.48	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	516.4-4	3.6.38.1	Test Fc, 30 min per axis, 1 oct / min 10 Hz – 55 Hz 0, 75 mm; 55 Hz – 2 kHz10g
			204D		3.6.38.2	
Vibration random	2-64	5.6.7.3	214A	514.5	3.6.38.3	Test Fdb
					3.6.38.4	
Endurance tests			108A			
- Aging		5.7.1			4.8.35	30 days @ +85°C, OCXO @ +25°C 1000 h, 2000 h, 8000 h @ +85°C
- Extended aging		5.7.2				