



Features and Benefits

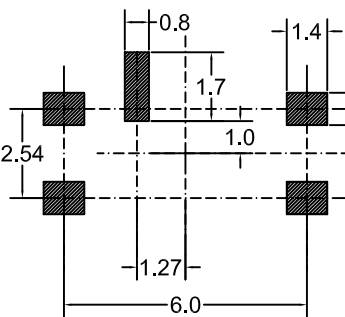
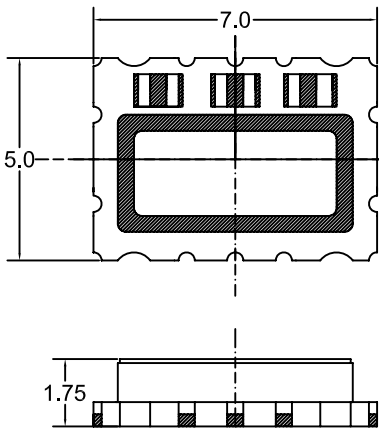
Better than ± 0.8 ppm from -55°C to +85°C
 Less than -140dBc/Hz @ 1KHz offset
 Less than 0.1ppb short term stability, for Tau = 1 second

Typical Applications

Mobile Radio
 Cellular Equipment
 Microwave Communications

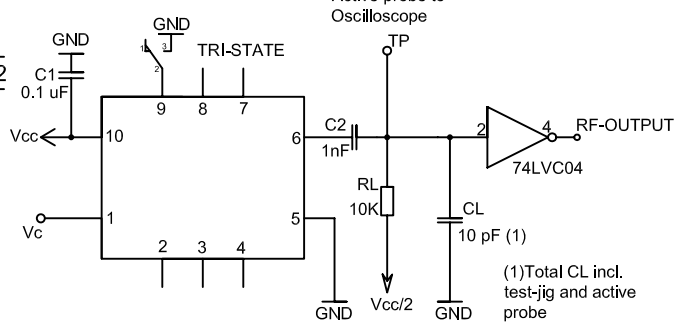
Mechanical Drawing & Pin Connections

Drawing No:MD150075-3



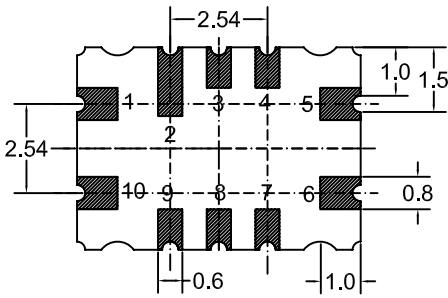
Solder pattern

Test Circuit



Pin Function

- #1 Vc(EFC)
 - #5 GND
 - #6 Output
 - #9 NC or E/D
 - #10 Vcc
- Do not connect #2, #3, #4, #7, #8



Unit: mm
 1mm=0.0394inch



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F ₀			16.8000		MHz	
RF Output							
Output Wave Form			Clipped Sine Wave				
Output Level				>0.8		V _{D-P}	
Load		±5%		10		kΩ	
				10		pF	
Power Supply							
Voltage	V _{CC}			3.3		V	
Current Consumption				<3		mA	
Frequency Control							
Electronic Frequency Control (EFC) Range	ΔF			>±5		ppm	
EFC Control V _C		Positive slope		+1.5		V	±1.0 V
E/D Function		Pin #6 -> Oscillation		Pin #9 high or open			
		Pin #6 -> high impedance		Pin #9 low or GND			
Frequency Stability							
VS. Tolerance		@ +25°C		≤±1.0		ppm	
VS. Temperature Reference to (F _{MAX} +F _{MIN})/2		Over -55°C to +85°C		≤±0.8		ppm	
VS Supply Voltage Change Reference to frequency at nominal supply		±5%		≤±0.1		ppm	
VS.Load Change Reference to frequency at nominal load		±10%		≤±0.1		ppm	
Aging		1 st year		≤±1.0		ppm	
Short Term Stability ADEV		T = 1 s		<1 x 10 ⁻¹⁰			
Phase Noise							
Phase noise@ 16.8MHz carrier frequency		@ 100 Hz		-120		dBc/Hz	
		@ 1 kHz		-140			
		@ 10 kHz		-155			
		@ 100 kHz		-155			
Environmental Conditions							
Parameter			Reference Std.				
Operating temperature range			-55°C to +85°C				
Storage temperature range			-55°C to +125°C				
Reflow Profiles as per IPC/JEDEC J-STD-020C			≤260°C over 10 sec. max				
Moisture Sensitivity			Level 1 (unlimited)				