



Features and Benefits

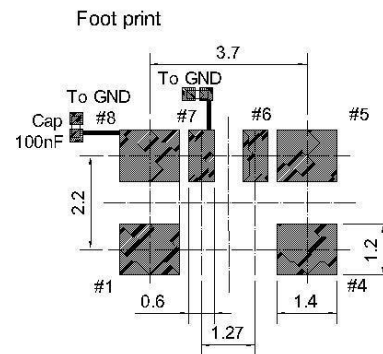
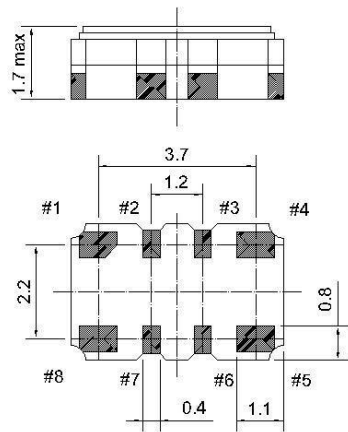
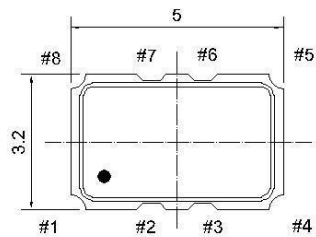
- Better than $\pm 0.28\text{PPM}$ from -40°C to $+85^{\circ}\text{C}$
- 10MHz low noise CMOS output
- 3.3V supply, 3mA maximum current
- Extended Temperature down to -55°C
- Option to add noise filter capacitor (33nF)

Typical Applications

- Mobile SATCOM
- Mobile Radio
- Harsh Environments
- Femto-cell

Mechanical Drawing & Pin Connections

Drawing No: MD150017-1

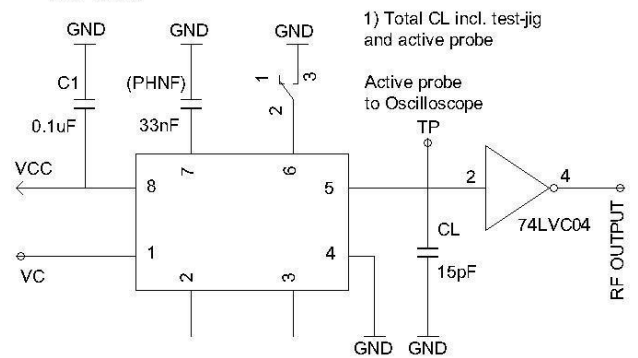


Pin function

#1	V _c (EFC)
#2	Do not connect
#3	Do not connect
#4	GND
#5	OUTPUT
#6	Tri-state or do not connect
#7	Do not connect optional 33nF to the GND
#8	V _{dc}
Phase noise reduction (optional on request)	
#7	Phase noise filter (PHNF) with external capacitor Cap = 33nF

Unit : mm

Test circuit





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F _{nom}			10		MHz	
Output Wave Form			HCMOS				
Output High Voltage			0.9V _{DC}				
Output Low Voltage					0.1V _{DC}		
Output Load					15	pF	
Start up Time					2	ms	
Tri-state Function		Pin#6=0.7x V _{DC} or open	Pin#5= Oscillation				
		Pin#6=0.3x V _{DC} or GND	Pin#5= High impedance				
Power Supply							
Supply Voltage	V _{cc}			3.3		V	
Supply Current					3	mA	
Frequency Control*							
Control Voltage Range	V _c		0.5	1.5	2.5	V	
Tuning Range			+/-5			ppm	Positive slope
Input Impedance			100			Kohm	
Frequency Stability							
VS. Temperature		From -40°C to +85°C,			+/-0.28	ppm	
Ref(F _{MAX} +F _{MIN})/2		From -55°C to -40°C,			+/-1.0	ppm	
Tolerance at +25°C					+/-0.5	ppm	
VS. Supply Voltage		+/-5% change at 25°C			+/-0.1	ppm	
VS. Load Change		+/-10% change at 25°C			+/-0.1	ppm	
Year Aging		First year			+/-1.0	ppm	
Short Term Stability ADEV		t=1 sec.			1X10 ⁻¹⁰	.	
Phase Noise (typ.)		@1 KHz			-135	dBc/Hz	
		@10KHz			-150		
		@100 KHz			-155		
Environmental Conditions							
Parameter	Reference Std.			Test Condition			
Operating Temperature range	-40°C to +85°C						
Storage Temperature range	-55°C to +125°C						
Reflow Profiles	Per IPC/JEDEC-J-STD-020C			<=260°C over 10 sec. Max.			