Features and Benefits

Better than +/-0.2PPM from -40°C to +85°C
10MHz CMOS output
3.3V supply, 3.3mA maximum current

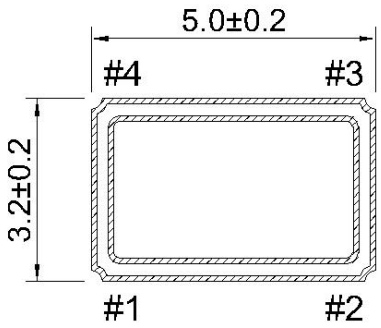
Typical Applications

Mobile SATCOM
Mobile Radio
Harsh Environments
Femto-cell

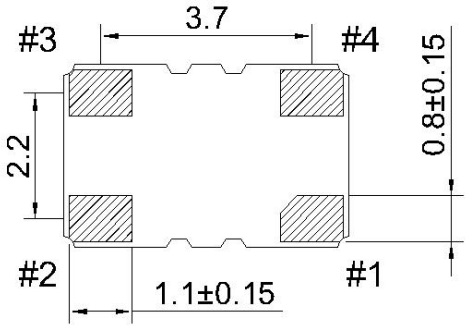
Mechanical Drawing & Pin Connections

Drawing No: MD140051-1

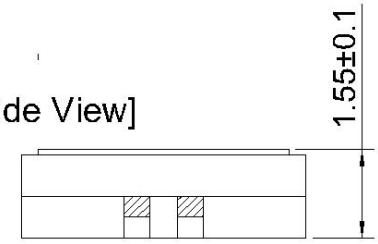
[Top View]



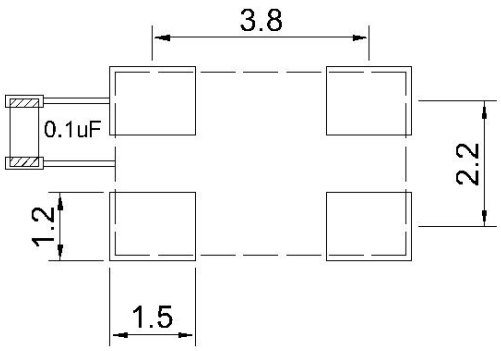
[Bottom View]



[Side View]



Recommended soldering pattern



Pin	Function
#1	Control Voltage
#2	GND
#3	Output
#4	Supply Voltage

Unit : mm

Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F_{nom}			10.000000		MHz	
Output Wave Form				CMOS			
Output Voltage Level High			2.97			V	
Output Voltage Level Low						0.33V	
Output Load Capacitance		Operating range			15	pF	
Duty Cycle		Measured at 50% V_{DD} trigger level	45	50	55	%	
Rise and Fall Times		CMOS logic output at 10% to 90%			8	ns	
Start Time					2	ms	
Power Supply							
Supply Voltage	V_{cc}		3.135	3.3	3.465	V	
Supply Current					3.3	mA	
Frequency Control*							
Control Voltage Range	V_c		0.5	1.5	2.5	V	
Tuning Range		Reference to VCON at 1.5V	+/-5			ppm	Positive slope
Linearity					10	%	
V_{con} Input Impedance			100			Kohm	
Frequency Stability							
VS. Temperature		From -40°C to +85°C Ref. to the frequency at 25°C			+/-0.2	ppm	
Tolerance at +25°C		Frequency at +25°C, 1hour after 2 times reflow			+/-2.0	ppm	
VS. Supply Voltage		+/-5% change at 25°C			+/-0.2	ppm	
VS. Load Change		+/-10% change at 25°C			+/-0.2	ppm	
Year Aging		First year at 25°C			+/-1.0	ppm	
Phase Noise (typ.)		@10 Hz		-100		dBc/Hz	
		@100 Hz		-125			
		@1 KHz		-145			
		@10 KHz		-155			
		@100 KHz		-158			

Environmental Conditions		
Parameter	**Reference Std.**	**Test Condition**
Operating Temperature range	-40°C to +85°C	
Storage Temperature range	-55°C to +125°C	
Vibration Test	MIL-STD-883 2007 Condition A JESD22-B103 Condition 1	10 – 2000Hz, 1.52mm, 20g, each axis 4hrs
Thermal Shock	MIL-STD-883 1010 Condition B JESD22-A104 Condition B	-55°C, 125°C; soak time is 10mins, with total 200 cycles.
Mechanical Shock	MIL-STD-883 2002 Condition B JESD22-B104 Condition B	1500G, half-sine, 0.5ms, each axis for 3 times