

Features and Benefits

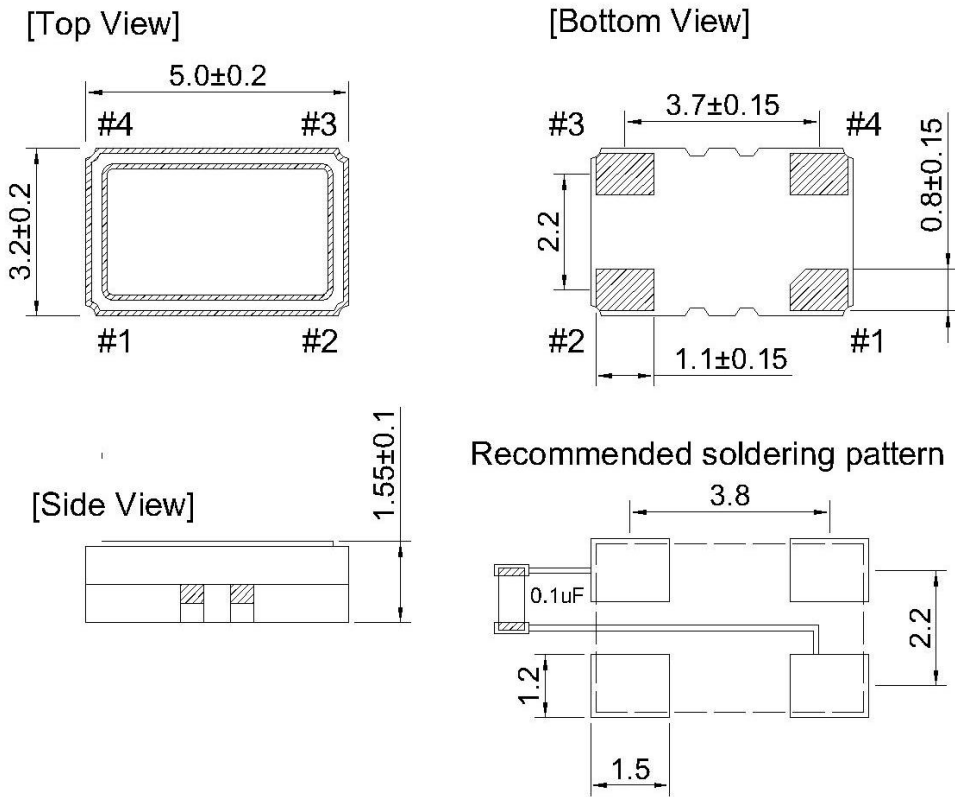
Better than +/-0.05PPM from -10°C to +70°C
 19.2MHz clipped sine wave output
 3.3V supply, 3.5mA maximum current

Typical Applications

Mobile SATCOM
 Mobile Radio
 Harsh Environments
 Femto-cell

Mechanical Drawing & Pin Connections

Drawing No: MD150051-1



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}			19.200000		MHz	
Output Wave Form			Clipped sine wave				
Output Voltage Level			0.8		2.0	V _{p-p}	
Output Load				10//10		Kohm//pF	
Start up Time					2.0	ms	
Power Supply							
Supply Voltage	V _{cc}		3.135	3.3	3.465	V	
Supply Current					3.5	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 -10°C to +70°C Ref. to the midpoint between min. and max. frequency value			+/-0.05	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			+/-1.0	ppm	
Phase Noise (typ.)		@10 Hz			-93	dBc/Hz	
		@100 Hz			-118		
		@1 KHz			-138		
		@10 KHz			-152		
		@100 KHz			-155		
Environmental Conditions							
Parameter	Reference Std.		Test Condition				
Operating Temperature range	-10°C to +70°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				