



**Features and Benefits**

Better than +/-1.5 PPM from -40°C to +85°C  
 3.3V supply; 20mA maximum  
 Less than -145dBc/Hz @ 1KHz offset  
 Less than -155dBc/Hz @ 10KHz offset

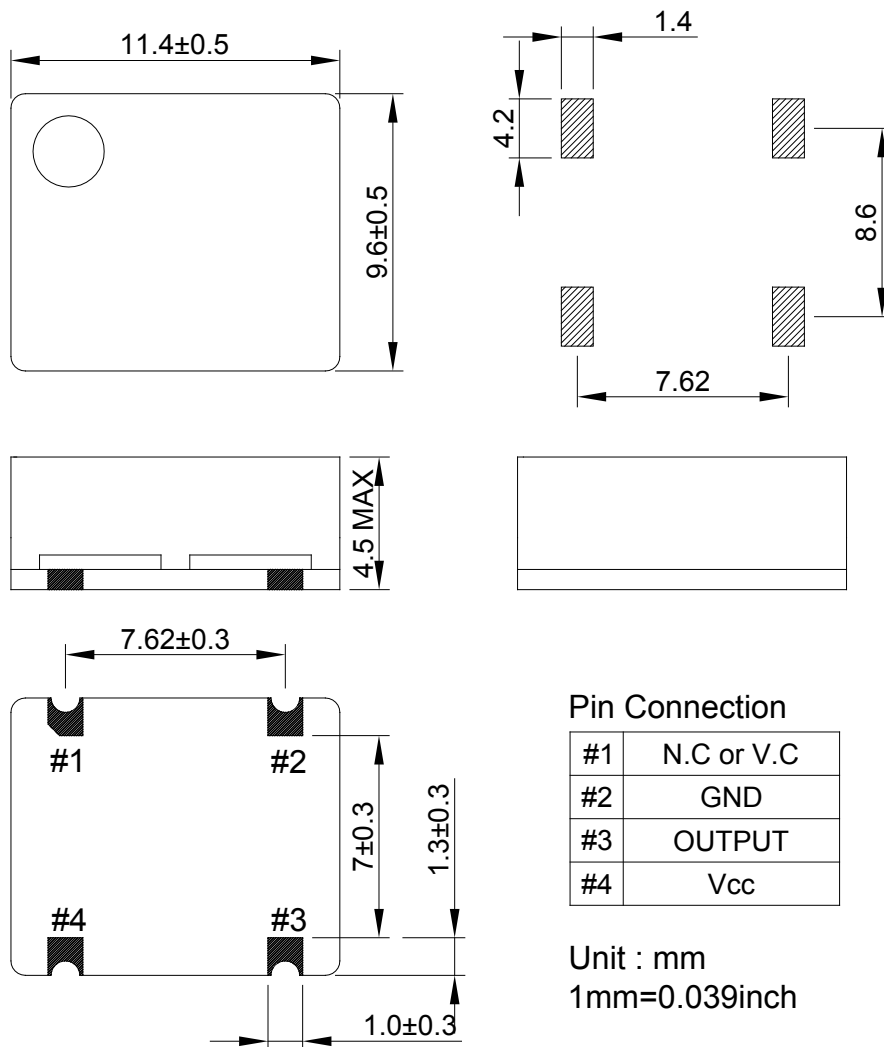
**Typical Applications**

Mobile Radio  
 Communication Equipments

**Mechanical Drawing & Pin Connections**

**Drawing No: MD160051-1**

**Recommended Soldering Pattern**



**Pin Connection**

#1	N.C or V.C
#2	GND
#3	OUTPUT
#4	Vcc

Unit : mm  
 1mm=0.039inch



## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F <sub>nom</sub>			20.000000		MHz	
<b>RF Output</b>							
Output Wave Form			Sine wave				
Output Level			0			dB	
Output Load				50		Ohm	
<b>Power Supply</b>							
Supply Voltage	V <sub>cc</sub>		3.135	3.3	3.465	V	
Supply Current		At maximum supply voltage			20	mA	
<b>Frequency Control</b>							
Control Voltage			0.15	1.65	3.15	V	
Pulling Range			+/-10			ppm	
<b>Frequency Stability</b>							
Initial Tolerance		Frequency @25°C, with 1.65V control voltage			+/-1	ppm	
VS. Temperature		Over -40°C to +85°C			+/-1.5	ppm	
Aging					+/-1	ppm/year	
Phase noise (typ.)		10 Hz			-90	dBc/Hz	
		100 Hz			-125		
		1K Hz			-145		
		10K Hz			-155		
		100K Hz			-155		
		1M Hz			-158		
<b>Environmental Conditions</b>							
<b>Parameter</b>	<b>Reference Std.</b>		<b>Test Condition</b>				
Operating temperature range	-40°C to +85°C						
Storage temperature range	-45°C to +90°C						