Features and Benefits

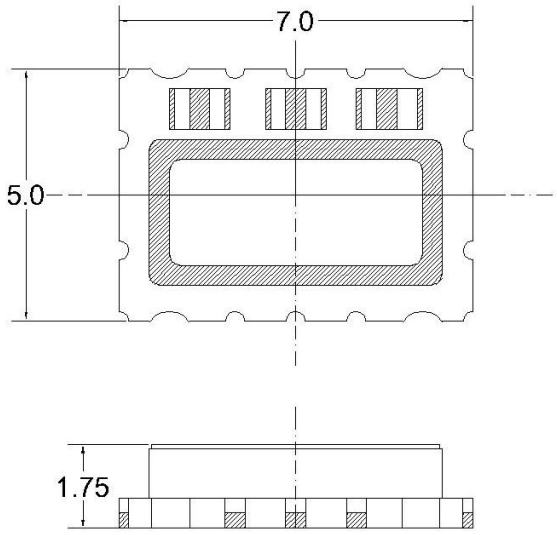
Better than +/- 0.2 PPM from -40℃ to +85℃
19.2MHz low noise clipped sine wave output
3.0V supply; 3mA maximum
Less than -145dBc/Hz @ 1KHz offset
Less than -152dBc/Hz @ 10KHz offset

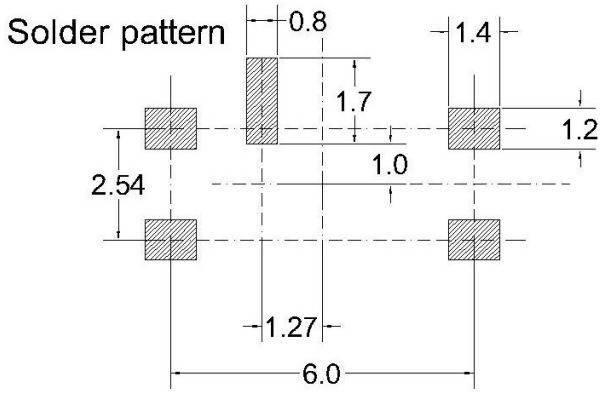
Typical Applications

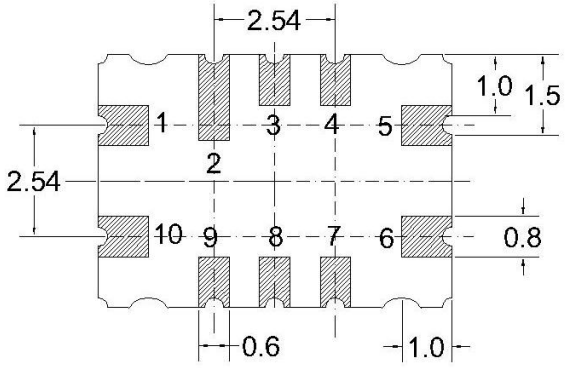
Mobile Radio
GPS Reference
Beidou Navigation Systems

Mechanical Drawing & Pin Connections

Drawing No: MD13003-2







Pin function

#1 Vc (EFC)
#5 GND
#6 Output
#9 NC or E/D
#10 Vdc

Do not connect #2, #3, #4, #7, #8

Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F_{nom}			19.2000		MHz	
Output Wave Form				Clipped sine wave			
Output Voltage Level			0.8			Vp-p	
Output Load				10//10		Kohm/pF	+/-10%
Start Time					2.0	ms	
Power Supply							
Supply Voltage	V_{cc}		2.85	3.0	3.15	V	
Supply Current		At maximum supply voltage			3.0	mA	
Frequency Control*							
Control Voltage Range	V_c		0.5	1.5	2.5	V	Positive slope
Tuning Range		Reference to VCON at 1.65V	+/-5.0			ppm	
Frequency Stability							
VS. Temperature		Over -40°C to +85°C			+/-0.2	ppm	A
Reference(F_{MAX}+F_{MIN})/2		Over -40°C to +85°C			+/-0.28	ppm	B
Tolerance At 25°C		Frequency @25°C, V_C=1.5V			+/-0.5	ppm	
VS. Supply Voltage		Supply voltage varied +/-5% at 25°C			+/-0.05	ppm	
VS. Load Change		+-10% load change			+/-0.05	ppm	
First Year Aging		First year at 25°C			+/-1.0	ppm	
Short Term Stability ADEV		T=0.1 to 1s			$1x10^{-10}$		
Phase noise (typ.)		1 KHz			-145	dBc/Hz	
		10 KHz			-152		
		100 KHz			-155		

Environmental Conditions		
Parameter	**Reference Std.**	**Test Condition**
Operating temperature range	-40°C to +85°C	
Storage temperature range	-55°C to +105°C	
Reflow Profiles	Per IPC/JEDEC J-STD-020C	<=260°C over 10 sec. Max.