



### Features and Benefits

Better than +/- 0.28 PPM from -40°C to +85°C 12.8MHz low noise CMOS output  
3.3V supply; 6.0mA maximum  
Less than -140dBc/Hz @ 1KHz offset Less than -148dBc/Hz @ 10KHz offset

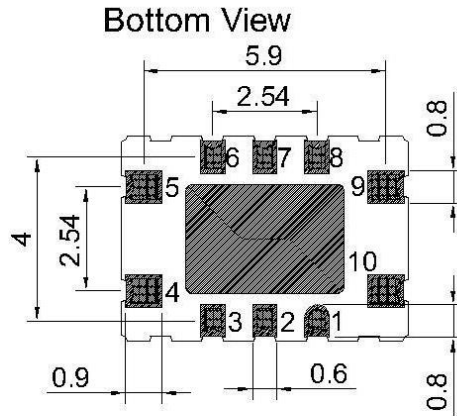
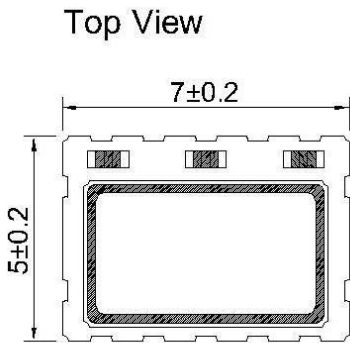
### Typical Applications

Mobile Radio  
GPS Reference  
Beidou Navigation Systems

### Mechanical Drawing & Pin Connections

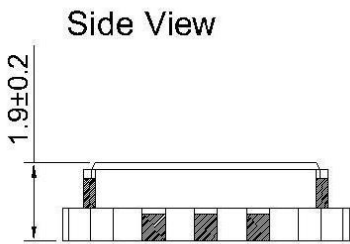
**Drawing No:**

**150015-2**

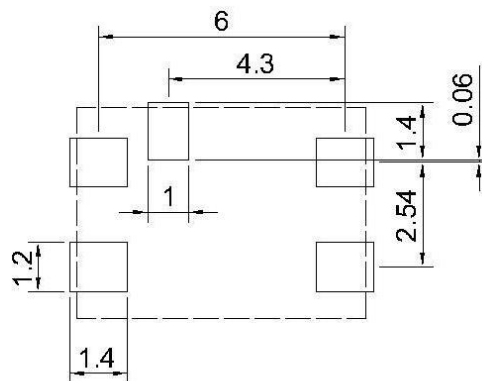


### Pin Function

#1	NC
#2	NC
#3	NC
#4	GND
#5	CMOS/Clipped Sinewave Output
#6	NC
#7	NC
#8	Tri-State Control
#9	VDD
#10	VCON VC-TCXO GND TCXO



### Recommended Soldering Pattern



Unit : mm



**Specifications**

Oscillator Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Nominal Frequency		F <sub>nom</sub>		12.8000			MHz	
Output Wave Form				CMOS				
Output Voltage Level(High)				2.97			V	
Output Voltage Level(Low)						0.33	V	
Duty				45		55	%	
Output Load			Operating range			15	pF	
Duty Cycle				45	50	55	%	
Rise and Fall Times			CMOS logic output at 10% to 90%			8.0	ns	
Start Time						2.0	ms	
Tri-State	Output Active			2.31			V	
	Output in High-impedance					0.99	V	
<b>Power Supply</b>								
Supply Voltage		V <sub>cc</sub>		2.97	3.3	3.63	V	
Supply Current			At maximum supply voltage			6.0	mA	
<b>Frequency Stability</b>								
Frequency Stability Over All			Inclusive of calibration @+25°C. Frequency stability over temperature Supply voltage V <sub>DD</sub> +/-5% change +/-10% load change Reflow soldering and aging 20 years.			+/-4.6	ppm	
VS. Temperature			From -40°C to +85°C			+/-0.28	ppm	
Aging			First year at 25°C			+/-1.0	ppm	
Phase Noise (typ.)			100 Hz		-120		dBc/Hz	
			1 KHz		-140			
			10 KHz		-148			
<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		-40°C to +85°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			