



### Features and Benefits

Frequency range: 15-2100MHz  
Output: LVDS  
Supply voltage: 2.5V  
Current: 80mA Max.  
Frequency stability vs. temperature:  $\pm 50$ PPM  
Operating temperature:  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$   
Size: 2.5x2x1mm  
Package type: SMD



### Typical Applications

Defense Systems  
Mobile Radar Station  
Gigabit Ethernet, SONET/SDH  
Server & Storage, Data Center  
SD/HD Video, FPGA Clock Generation

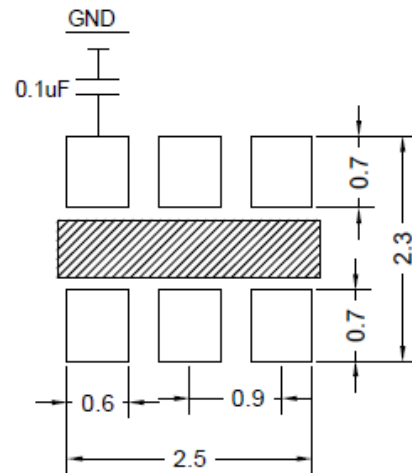
### Mechanical Drawing & Pin Connections

**Drawing No:** MD240070-1



PIN	Function
#1	Control Voltage
#2	OE
#3	GND
#4	OUTPUT
#5	OUTPUT_N
#6	Supply Voltage

Unit in mm  
1mm = 0.0394 inches



Please keep the middle area blank.  
Do not layout any lines in this space.  
To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vcc and GND pads



## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	$f_0$		15		2100	MHz	
<b>RF Output</b>							
Output Waveform			LVDS				
Output Level		Output high			1.6	V	
		Output low	0.9			V	
Duty Cycle			45		55	%	
Rise & Fall Time					0.35	ns	
Startup Time					8	ms	
Tri-State (Input to Pin2)		Enable	0.7 $V_{cc}$			V	
		Disable			0.3 $V_{cc}$	V	
<b>Power Supply</b>							
Voltage	$V_{cc}$	$\pm 10\%$		2.5		V	
Supply Current		$V_{cc} = 2.5V$			80	mA	
Stand by Current		$V_{cc} = 2.5V$			80	mA	
<b>Control Voltage</b>							
Control Voltage	$V_c$	$V_{cc} = 2.5V$	0.25	1.25	2.25	V	
Pulling Range			$\pm 50$		$\pm 250$	ppm	
Linearity					$\pm 10$	%	
Modulation Bandwidth			5		20	KHz	
$V_c$ Input Impedance			5			Mohm	
<b>Frequency Stability</b>							
Versus Temperature					$\pm 50$	ppm	
Phase Noise At $V_{cc} = 3.3V$ , 873.515MHz Frequency		1KHz		-106		dBc/Hz	
		10KHz		-115			
		100KHz		-123			
		1MHz		-133			
RMS Phase Jitter		Integrated 12KHz-20MHz	150		300	fs	
Period Jitter					50	ps	
<b>Environmental Conditions</b>							
Operating temperature range		$-20^\circ C$ to $+70^\circ C$					