



### Features and Benefits

- Frequency Range 20 MHz to 200 MHz (175 MHz for LVDS)
- 5.0 mm x 3.2 mm 6 pads ceramic SMD package
- ±50 ppm total stability over -40°C to +85°C
- ±25 ppm total stability over -20°C to +70°C available
- LVPECL / LVDS outputs
- 3.3V supply
- Tri-state enable / disable
- Available tight symmetry (45 to 55%)

### Typical Applications

- WiMax/WLAN
- xDSL/VoIP, cable modem
- Set-top Box, HDTV

### Description

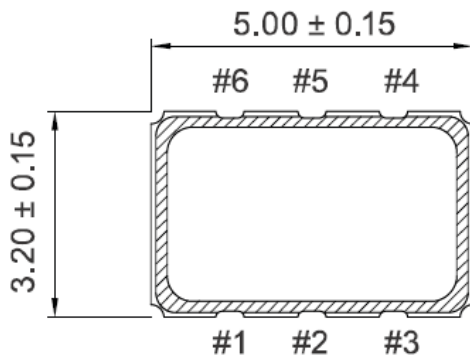
A new series of voltage controlled oscillators with the latest tight symmetry topologies.

### Mechanical Drawing & Pin Connections

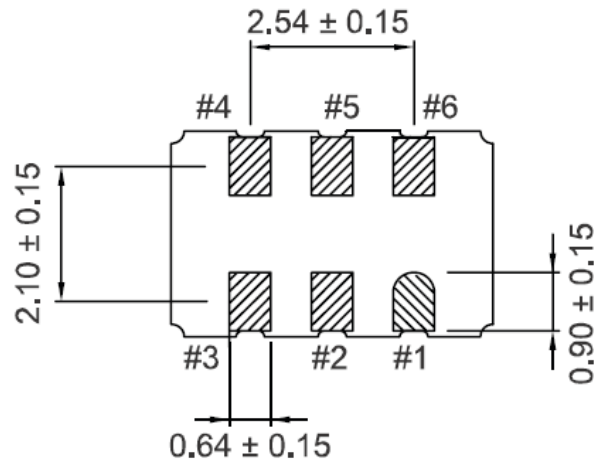
Drawing No:MD160026-1

Unit:mm  
1mm=0.0394inch

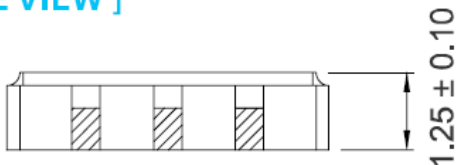
[ TOP VIEW ]



[ BOTTOM VIEW ]



[ SIDE VIEW ]



Pin#	Function
1	Vcon
2	Tri-State
3	GND
4	Output
5	NC
6	VDD



Specifications

General Specifications				
Output Logic Type	LVPECL		LVDS	
Parameter	3.3V		3.3V	
	Min.	Max.	Min.	Max.
Frequency Range	20MHz	200 MHz	20 MHz	175 MHz
Standard Frequency	122.88MHz, 153.60MHz, 155.52MHz, 156.25MHz			
Control Voltage Range	0.3V	3.0V	0.3V	3.0V
Supply Current 20 MHz ≤ F <sub>o</sub> ≤ 200 MHz	-	100 mA	-	75 mA
Supply Voltage Variation (V <sub>DD</sub> ) ±5%	3.135V	3.465V	3.135V	3.465V
Output Level				
Output "High" Voltage; V <sub>OH</sub>	2.275V	-	-	1.6V
Output "Low" Voltage; V <sub>OL</sub>	-	1.68V	0.9V	-
Tri-State (Input to Pin 2 or Pin 1)				
Enable (High voltage or floating)	2.31V	-	2.31V	-
Disable (Low voltage or GND)	-	0.99V	-	0.99V
Frequency Stability	±50 ppm over -20°C to +70°C or -40°C to +85°C ±25 ppm over -20°C to +70°C			
RMS Phase Jitter				
F <sub>o</sub> < 100 MHz	-	1.0 pSec	-	1.0 pSec
100 MHz ≤ F <sub>o</sub> ≤ 125 MHz	-	0.7 pSec	-	0.7 pSec
125 MHz ≤ F <sub>o</sub> ≤ 150 MHz	-	0.5 pSec	-	0.5 pSec
150 MHz ≤ F <sub>o</sub> ≤ 200 MHz	-	0.3 pSec	-	0.3 pSec
Phase Noise @ 122.88 MHz	100 Hz	-105 dBc/Hz		
	1 kHz	-128dBc/Hz		
	10 kHz	-145dBc/Hz		
Absolute Pulling Range (APR)	±50ppm min.			
Rise Time (Tr)/Fall Time (Tf) (20% V <sub>DD</sub> – 80% V <sub>DD</sub> )	1.0 nS max			
Start-up Time	3ms max.			
Linearity	10% max.			
Modulation Bandwidth (BW)	20 kHz min.			
Input Impedance	5000 KΩ min.			
Aging (first year at 25°C)	±3 ppm max.			
Storage Temp. Range	-55°C to +125°C			

Stability vs. Temperature Range Availability		
	Temperature Range	
Stability in ppm	-20°C to +70°C	-40°C to +85°C
±50	Available	Available
±25	Available	Not Available

Other customized specifications maybe available. Please contact Dynamic Engineers Inc. for further details.