Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

VCXO7500S-LVPECL
Voltage Controlled Crystal Oscillator
LVPECL outputs

Features and Benefits

Frequency Range 100 MHz to 800 MHz
7.00 mm x 5.00 mm x 1.75mm 6 pads ceramic SMD package
± 50 ppm total stability over -40°C to +85°C
Low jitter performance: <1 pS RMS from 12k-20MHz
LVPECL outputs
3.3V supply
Tri-state enable / disable
Wide frequency control range

Typical Applications

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

Description

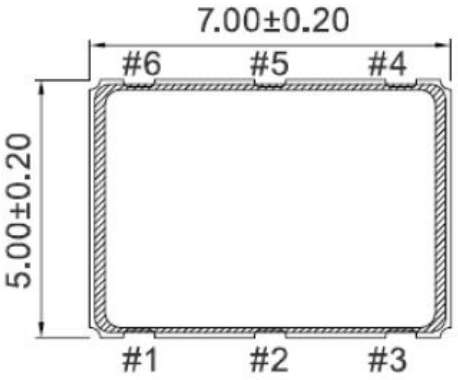
A new series of voltage controlled crystal oscillators with the latest low jitter IC technology.

Mechanical Drawing & Pin Connections

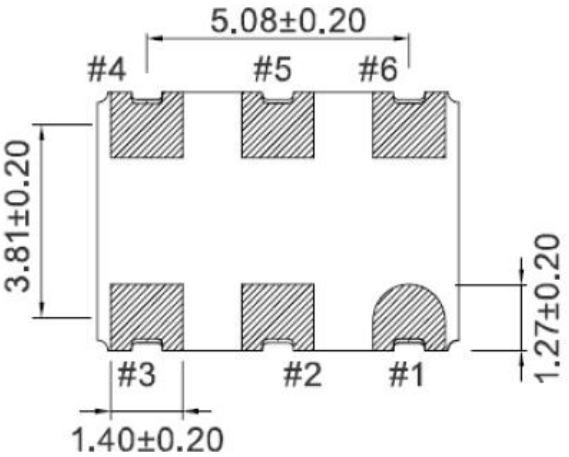
Drawing No: MD160039-1

Unit:mm
1mm=0.0394inch

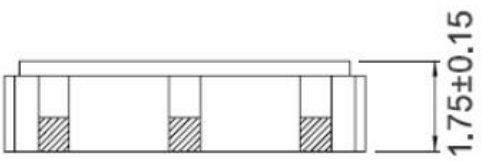
[TOP VIEW]



[BOTTOM VIEW]



[SIDE VIEW]



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

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Specifications

General Specifications			
Output Logic Type		LVPECL	
Parameter		3.3V	
		Min.	Max.
Frequency Range		100 MHz	800 MHz
Standard Frequency		122.88MHz, 125.00 MHz, 155.52MHz, 200MHz, 491.52 MHz, 622.08 MHz	
Control Voltage Range		0.3 V	3.0V
Supply Current 100 MHz ≤ Fo ≤ 160 MHz 160 MHz ≤ Fo ≤ 800 MHz		 - -	 75 mA 100 mA
Supply Voltage Variation (V_{DD}) ±10%		2.97 V	3.63V
Output Level			
Output "High" (Logic "1")		2.275 V	-
Output "Low" (Logic "0")		-	1.68 V
Tri-State (Input to Pin 2)			
Enable (High voltage or floating)		2.31V	-
Disable (Low voltage or GND)		-	0.99V
RMS Phase Jitter (Integrated 12 kHz – 20 MHz)		-	1 pSec
Phase Noise @ 612.08 MHz	100 Hz	-70dBc/Hz	
	1 kHz	-95dBc/Hz	
	10 kHz	-105 dBc/Hz	
Absolute Pulling Range (APR)		±50 ppm min.	-
Transition Time: Rise / Fall Time(20% V_{DD} – 80% V_{DD})		-	1.0 nS
Start-up Time		-	3ms
Linearity		-	10%
Modulation Bandwidth (BW)		25 kHz	-
Input Impedance		2000 KΩ	-
Aging (first year at 25°C)		-	±3 ppm
Storage Temp. Range		-55°C	+125°C

Stability vs. Temperature Range Availability		
	Temperature Range	
Stability in ppm	-10°C to +70°C	-40°C to +85°C
±50	Available	Available
±25	Conditional (depends on operating frequency; case by case)	Not Available

Not all operating frequencies available with ±25 ppm stability over -40°C to +85°C. Other customized specifications may be available.

Please contact Dynamic Engineers Inc. for further details.