



Dynamic Engineers Inc.

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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

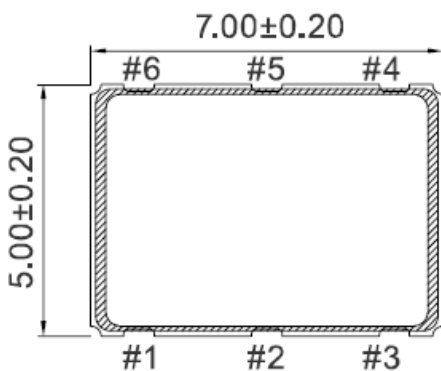
A new series of voltage controlled crystal oscillators with the latest low jitter IC technology.

Mechanical Drawing & Pin Connections

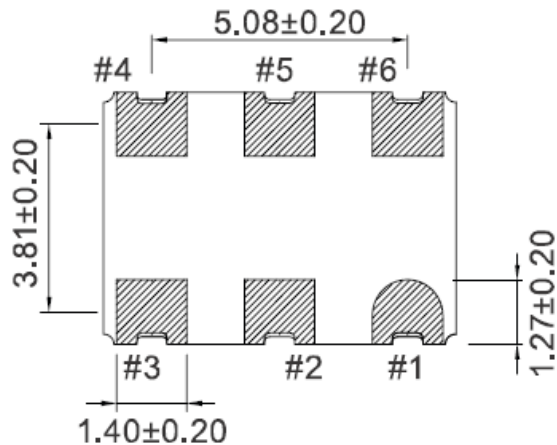
Drawing No:MD160039-1

Unit:mm
1mm=0.0394inch

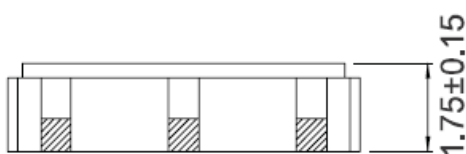
[TOP VIEW]



[BOTTOM VIEW]



[SIDE VIEW]



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



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	-	75 mA
160 MHz ≤ Fo ≤ 800 MHz	-	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 maybe available.

Please contact Dynamic Engineers Inc. for further details.